Annual Address

Delivered on February 6th at the

OBSTETRICAL SOCIETY OF LONDON,

BY HENRY GERVIS, M.D. LOND., F.R.C.P.,
PRESIDENT OF THE SOCIETY.

GENTLEMEN,—We celebrate this evening the twenty-fifth anniversary of our Society. It was inaugurated at a meeting held in Freemasons' Hall in December, 1858; and on the 5th of January, 1859, its first public meeting took place. For many years it was customary to hold the annual meeting in January, but the occasional occurrence of the 1st of January on the first Wednesday of the month proved a source of social inconvenience, and we now, as this evening, hold our annual meeting in February. We have therefore now fairly entered upon our second quarter of a century. It is customary among the married—and the customs of the married cannot be without interest to the Fellows of this Society—to take special note of the twenty-fifth wedding-day, to speak of it as the "silver wedding," and to receive thereon the congratulations of friends. For twenty-five years this Society has been wedded to the ascertainment of truth, and the union has been attended with the happiest results. Within this period of time obstetric medicine has advanced almost by "leaps and bounds," and very much of this advance has been due to the influence, direct and indirect, exercised by our Society. I think therefore that this evening we may fairly congratulate ourselves on the retrospect, and anticipate the future with an assured satisfaction. The work of the Society during these twenty-five years has, without question, more than justified the prescience of those distinguished men who at the inaugural meeting gave the initial impetus to its formation. It is not, however, my purpose now to refer with any detail to the work we have accomplished in the more distant past, as I ventured to make some reference to this when entering on the duties of this chair in March of last year; but I am gratified in being able to state that in numbers, finance, and position we show no sign of decadence, and that the volume which will shortly be issued containing the records of our past year's work may vie with any of its predecessors in interest and importance. As regards numbers, during the year fifty-seven new Fellows have joined our ranks; and from my personal knowledge of many of these, I can without hesitation state that in their accession we have gained not merely numbers, but much scientific capacity and professional skill. Our finances during the year have sustained something of a strain in connexion with the removal of our library from Regent-street to Berners-street; but it is no small satisfaction to me to be able to draw your attention to the fact, as shown by our treasurer's balance-sheet, that the entire expenditure has been defrayed out of income without at all diminishing our invested capital.

In reviewing briefly the scientific work of the year, I would refer, first, to the large number of specimens which month by month have been exhibited at our meetings. So numerous have they been at times that their consideration has occupied more than the half-hour allotted to them, and the discussion they have elicited has trenched upon the time intended for the chief paper of the evening. I should be unwilling, however, speaking for myself, to discourage in any way these exhibits. I think them often full of instruction and interest—instruction and interest which come vividly home to the minds of many Fellows attending our meetings, who have not in their practice the opportunity of so frequently seeing and handling specimens as happens to those of us connected with hospital work. But while inviting and welcoming these specimens, I might venture to suggest that it would be well that remarks arising out of them should be brief and strictly devoted to their elucidation, and not assume any wide range or controversial character. I would indeed venture to recall some of these specimens to your memory as illustrations of the rare and the interesting.

In March we had Dr. J. Williams's specimen of undoubted fibroma of the ovary, a disease so uncommon that by many pathologists its occurrence has been questioned; and on the same evening we had Dr. Bantock's series of uterine fibroids for which hysterectomy had been performed—an interesting illustration at once of the advance of abdominal surgery and of technical skill. In April Mr. Thornton showed us a soft myo-fibroma weighing nearly 12lb., which with the uterus and its appendages he had removed—a specimen interesting alike from its great size, from the fact of its having occupied a hernial protrusion of the abdominal wall prior to its removal, and from the extent and boldness of the operative procedure which the case demanded. In May Dr. Carter exhibited a pair of cystic ovaries, the seat of the peculiar degeneration described by Rokitansky, in which the origin of the cysts from Graafian follicles is proved by the presence in them of ova. In June Dr. Grailly Hewitt showed a specimen of extreme hypertrophy of the uterus associated with anteflexion; the hypertrophy was indeed so considerable, the uterus filling the pelvis and weighing 20oz., that some of the Fellows present were disposed to look upon it rather as general fibroid degeneration of the uterus than simple hypertrophic enlargement. In July Dr. Meadows showed a large ovarian tumour which, with a uterine fibroid, he had removed from the same patient, removing at the same time the uterus and the other ovary—a specimen illustrative of the not very uncommon association of fibroid disease of the uterus with cystic disease of the ovary, as well as of the possibilities which our art has developed for the management of so formidable a combination; and in November Dr. Meadows showed a fœtus from a case of abdominal gestation, the particulars of which brought vividly before us both the difficulties of the diagnosis and the success of well-conceived operation in the treatment of these singularly interesting cases.

Turning to the larger papers which have been read, I am confident that you will agree with me that they have been admirably representative of both the science and art of our specialty. Dr. Champneys' two contributions, the one on the influence of the presence of the femora in modifying the shape of the pelvis, and the other on the obstetrics of the kyphotic pelvis; Dr. Braxton Hicks's, on the behaviour of the uterus in puerperal eclampsia; and Dr. Barnes's, on the obliquity of Naegelé and the influence of the lumbo-sacral curve, were communications of the highest interest and importance, and have very distinctly enriched obstetric science and thrown lustre on our proceedings for the year. Dr. Barnes's demonstration of the disturbance of equilibrium at the brim by the resistance offered by the promontory at one extremity of the transverse diameter, and the increased driving power of the uterus exerted at the other, cannot but be accepted as at least very powerful arguments in favour of a normal obliquity.

Mr. Lawson Tait's note on uterine myoma was especially interesting in connexion with his suggestions as to the initial pathology of the disease; as possibly if its starting-point were better understood its early treatment might leave fewer cases for extirpation of the uterus or removal of the ovaries. To establish the etiology of fibroids would be the solution of a problem of the highest interest, and one by general assent still unsolved. Gusserow, in Billroth's Handbuch, says, "Of the causes of fibroid tumours we know as little as of the causes of most pathological new formations—i.e., nothing." Of the possibility of removing with safety fibroid uteri of large size or serious symptoms, the success in operation of several of the Fellows of this Society leaves no doubt; but the question between such removal and the less formidable operation of removal of the ovaries, during at all events active menstrual life, is one that has yet to be settled. The evidence, however, is accumulating, and the day cannot be distant when the surgical treatment of large interstitial or subperitoneal fibroids will be placed on a scientific, and so a definite basis.

In Dr. H. Bennet's paper on the anatomy, physiology, and pathology of the os uteri internum, the Society had material before it possessing a double interest, an interest both personal and scientific. It was gratifying to us all to welcome in Dr. Bennet one of the earliest, if not quite the earliest, of the pioneers of the school of practical gynæcology. I recollect reading somewhere that in days not so long gone by the treatment of uterine disease included three remedies and three remedies only: alum injections for leucorrhœa, belladonna plasters for aching backs, and iron as the one reliable medicine equally for amenorrhœa and menorrhagia. To Dr. Bennet's initiation we largely owe the recognition of the fact that leucorrhœa, menorrhagia, and sacral pain are

symptoms for the most part of local lesions to be discovered by physical investigation, and that their successful treatment includes the remedying of the local cause by local means. The debate which followed Dr. Bennet's able paper had also much interest, in eliciting that the preponderating view of the Fellows present was in favour of a moderate dilatation of the cervical canal in cases of stenosis, although each appeared to have his favourite plan for attaining the same end.

In Mr. Lawson Tait's paper on pyo-salpinx and its treatment, the Society heard from one of the most enthusiastic advocates of abdominal section the surprising narrative of upwards of sixty operations for cases of tubal distension, without one fatal result. In spite, however, of this remarkable success, the general feeling among us was, I think, that more light was yet needed on the pathology, and the symptoms, and even the diagnosis of this malady, before the Society could pronounce unreservedly that abdominal section, safe as it has proved in Mr. Tait's skilled hands, was the routine treatment for all inflamed and distended tubes.

Of papers based on clinical observation we have also had a varied and important series:—Dr. Burchell's on turning in contraction of the pelvic brim, Dr. Fancourt Barnes's on labour with atresia vaginæ, Dr. Rasch's case of extra-uterine gestation, Dr. Herman's exhaustive account of the literature of acute gangrene of the vulva in the adult, in connexion with the interesting case he detailed, and Dr. Swayne's case of gangrene occurring in the seventh month of pregnancy. All contained records, suggestions, and information by which the debates and the Transactions of the Society have been greatly enriched.

Leaving these slight references to our numerical strength, our finance, and our work, there are some two or three subjects as to which I may venture as your spokesman to offer our congratulations. We may, I think, firstly congratulate our late president and ourselves on his appointment as Crown Nominee on the General Medical Council. It was long a matter for regret to us as obstetricians that for many years on that Council there was no one specially connected with obstetric teaching or practice. For too short a time the late Dr. McClintock represented us, but now again we have the satisfaction of knowing that our department is represented by an obstetrician of the highest rank. In the second place, it will not be unfitting for us as a Society to offer our congratulations to our distinguished associate, Sir Spencer Wells, on the hereditary honour recently conferred upon him. No words of mine can add to his fame. His monument is perennial. His classical work on the diseases of the ovaries; his unsurpassed skill as an operator; his courageous perseverance when abdominal surgery was by many, if not by most, thought rather to savour of a reckless enthusiasm, constitute but some of his claims not merely to the State recognition, on which we congratulate him, but to what I am certain he values not less, the respectful admiration of the profession he adorns. And, thirdly, we have some special cause for self-gratulation in the inauguration of our new library. Only inferior to having premises entirely of our own is the convenience of having the noble rooms we have lately taken in close proximity to this room, in which we pass so many pleasant and instructive evenings. It is indeed no small addition to the advantages which are associated with the Fellowship of this Society that we have so large a collection of books, and so spacious and comfortable a room in which to consult them, as we now possess, and it is fitting that we should take this opportunity of expressing to the library committee, and in a very special manner to the honorary librarian, Dr. Champneys, our sincere thanks for the time, trouble, and care they have bestowed upon this work. In connexion with the library I must not omit to remind the Society that on the evenings of our meetings, instead of closing finally at 6, it is reopened between 7 and 8, that Fellows from a distance coming to the meetings may, if they wish, obtain books at the same time, and so be spared any special journey or trouble.

I must not fail, too, to refer to the increasing popularity of our examinations of midwives. During the past year, as you have heard, no less than sixty-four candidates have presented themselves to our Board, of whom fifty-three succeeded and eleven failed. It has been for long one of the especial objects of our Society to improve the education of midwives, and with the result, I believe, not only of benefiting the poorer classes of the community, but our own profession also. For, as I ventured to intimate in my address in March, I hope much from the emancipation of the younger members of our profession from arduous and ill requited midwifery attendance among a class quite too poor to remunerate them, and by which their time and comfort are alike invaded, and too often health itself hopelessly lost. The new rules which have been formulated with respect to the constitution and guidance of the Examining Board, and which your Council believe will add to its efficiency and success, have received your sanction this evening.

In the address I had the honour to deliver when taking this chair for the first time in March of last year I ventured to mention some four or five subjects which I thought would be suitable for our consideration. There is yet another which I trust may be brought forward before long on which the expressed opinion of the Fellows of this Society would be of widespread interest and value. I allude to the employment of antiseptics in ordinary midwifery practice. It has frequently been incidentally referred to, it was so indeed in the January debate on puerperal temperatures, but it has never been systematically brought forward and discussed. In most of our text-books the adoption of antisepsis in some form is more or less taken for granted, but in scarcely any are definite rules laid down for the guidance of the practitioner. It would not indeed, I think, be unfitting if our Society in its corporate capacity were to issue as its recommendations some system of definite rules connected with this subject, as it did some years ago on the management of infants. At the opening of the Parkes Museum Professor Tyndall in the weighty address he then delivered said, "Millions have died that bacilli and bacteria might live." And of these millions puerperal women have, I fear, formed no inconsiderable part. To formulate how best to lessen this mortality, and to prevent the numerous pathological conditions arising from septic infection, too slight, it may be, to produce fatal results, but yet sufficient to induce all sorts of lesions, more or less serious, and often permanently damaging to the pelvic tissues, and, possibly, to the general health, would form an outcome of the Society's work which would, had the Society done nothing else, more than justify its origin and growth.

Without presuming now to enter upon this great subject, which includes the consideration of antiseptic details both before, during, and at the close of labour, there are just one or two not unimportant points which, taking advantage of my occupation of this chair, I should like to refer to as worthy of uniform attention. And the first is the systematic careful examination of the vaginal entrance at the conclusion of a labour. In the course of the year it is one's lot to see many cases of illness following delivery. In a very large proportion these cases are septic in character, and in many when one asks, "Is the perineum all right?" the answer evinces that the matter has not been thought of as coming within the range of a necessary investigation. On looking, however, at the perineum, with very few exceptions, at or within its margin, or at the vaginal entrance, or on or about the vestibule, we find circumscribed sloughy patches, of greater or less extent, evidently corresponding with lacerations, trifling or even considerable, in the mucous surface of the genital tract, lacerations that very possibly are quite unavoidable, and which early attention with antiseptic dressing might have rendered harmless, instead of leaving them to become, as too often is the case, channels of entrance for septic matter. The importance of early surgical attention to a torn perineum adds further emphasis to the desirability of the inspection which I urge. And in addition to this double advantage I would in passing note that I have known several cases where the fact of a perineal tear not having been ascertained at the time of the confinement has led to much unpleasant subsequent correspondence and even legal proceedings. Equally, therefore, from the medical, surgical, and social points of view, the careful examination of the outlet of the genital canal at the termination of every labour is a matter I would press as a duty of uniform importance.

Before passing from this slight reference to the fascinating subject of antisepticism, and the commoner starting-points of septic infection, I would venture just one word more with reference to the use of antiseptic injections. Many years ago when intra-uterine irrigation was less common than it is now, I communicated to the Society some particulars of a case in which washing-out the uterus, in a patient the subject of puerperal fever, was followed on each occasion by a very striking fall in temperature. That experience is now the experience of everyone. But I think it still not so widely known as it should be that perseverance in these

irrigations is often attended with the best results; and that while a single irrigation is useful often in the highest degree, its repeated adoption, so long as necrotic particles continue to be shed from a sloughy vagina, or endometritic uterus, serves the double purpose of removing fresh infective products and of advantageously douching an inflamed surface.

(To be concluded.)

Clinical Lecture
ON A
CASE OF EMPYEMA COMMUNICATING WITH THE LUNG:
TREATMENT BY FREE INCISION AND DRAINAGE; VERY RAPID RECOVERY.

BY I. BURNEY YEO, M.D., F.R.C.P.,
PHYSICIAN TO KING'S COLLEGE HOSPITAL.

GENTLEMEN,—The case to which I wish to call your attention to-day you will do well to study attentively, for it presents an example of one of the greatest triumphs of antiseptic treatment which you can witness.

Joseph A——, a ship's captain, forty-one years of age, was admitted into this hospital, under my care, with the following history. He had been attacked about eight months previously with pneumonia of the left lung, and had never been well since. He had been suffering from cough, emaciation, and severe night sweats, the latter having ceased during the last twelve days. For the past five months he had, at intervals of about ten days, expectorated half a pint or more of fluid at a time, which was said to be muco-purulent.

Condition on admission.—He is thin (he weighs 8 st. 5½ lb.; nine months ago he weighed 13 st.) and his muscles feel flabby; his countenance has rather a puffy look, and he has a hectic flush. He has some pain on the left side on breathing and a dragging feeling when he lifts his left arm. He cannot lie on the right side. He has a frequent short cough, with greenish muco-purulent expectoration ("slightly fetid" is in the first notes, but I was never able myself to detect any odour in the matter expectorated). It was examined microscopically by Dr. Gibbes, but was found free from putrefactive organisms. Pulse 100; respiration 24; tongue clean; appetite fairly good; skin moist.

Physical Examination.—The circumference of both sides of the chest was found equal (18 in. below the nipple, 17½ in. at the base of the xiphoid cartilage). On the left side the inspiratory expansion is greatly diminished. There is dulness on percussion over the whole of the left side of the chest, absolute below the seventh rib and diminishing in intensity from the seventh rib upwards. An exception to the general want of resonance is, however, found over an area in front, limited externally by a line drawn from the middle of the clavicle to the fourth rib; here there is hyper-resonance, which seems to cross the sternum and become continuous with the resonance of the right lung; breathing here is loud and somewhat blowing, the vocal fremitus is increased, and there are a few scattered râles heard occasionally. Over the area of absolute dulness there is entire absence of vocal fremitus and of respiratory sounds; above the seventh rib indistinct vocal fremitus can be detected and feeble distant breath sounds. There is no œdema of the chest wall nor any bulging of the chest or of the intercostal spaces, except at one spot in front between the fourth and fifth ribs, where there is a distinctly localised swelling of an area of about two and a half inches by an inch, a little external to the nipple, and projecting about half an inch above the surface; it is tender to the touch, becomes tense on coughing, and an impulse synchronous with the cardiac pulsations is communicated to it. Auscultation over it reveals normal but distant heart sounds and an occasional creak. The heart's impulse is felt (displaced) in the epigastrium and to the right of the lower half of the sternum; sounds normal. Nothing abnormal to be detected on examination of the right lung.

Diagnosis.—After the examination we concluded that the case was one of purulent effusion in the left pleural cavity, which had effected a communication with the lung, and that periodically, when the tension within the pleural cavity became sufficiently great, a certain quantity of the purulent fluid in the pleura was expelled through the bronchial passages. The swelling in the front of the chest also indicated that the fluid had weakened or perforated a spot between the third and fourth ribs. It would seem as though this fluid, under tension within the pleural cavity, had attempted to discharge itself in two directions, and had found least difficulty on the side of the lung. It is also most likely that adhesions more or less extensive between the surface of the lung and the wall of the chest prevented further compression of the lung, so that the fluid pressure was brought to bear on a portion of comparatively uncompressed lung. It would seem, also, that the opening into the lung must be a valvular one, opening towards the air-passages, and not towards the pleura, for there was no sign whatever of the entrance of air into the pleural cavity. We must also bear in mind that the pressure of the fluid on the surface of the lung would tend to keep the air from escaping from any small opening that had accidentally been made. This was our diagnosis, but we resolved to wait until the periodical return of the profuse discharge from the air-passages had again occurred, so that we might observe its amount and character for ourselves. We were the more bound to do this, as the case had come to us with the suggestion that the fluid expectorated might possibly come from a dilated bronchus. We waited fourteen days, during which time our patient presented the symptoms of a mild form of hectic fever, the temperature fluctuating somewhat freely between 99·6° and 103·2°, the pulse ranging between 100 and 120, and the respiration between 24 and 44. On the fourteenth day after his admission he had an attack of profuse expectoration, and in twenty-four hours he brought up twenty ounces of muco-purulent fluid, quite free from fetor and from putrefactive organisms. The dulness and other physical signs remained precisely the same. This discharge was followed by a marked abatement of the fever, the temperature for the next six days scarcely rising above 100°. On the 22nd I introduced the needle of a hypodermic syringe into the pleural cavity, just below the angle of the left scapula, and withdrew twenty minims of perfectly sweet pus, which was examined by Dr. Gibbes, who reported that he found pus and fat cells, a little fibrin, and no septic bacteria. It was now absolutely certain that our diagnosis was correct, and that the contents of the pleural cavity were quite free from any putrefactive change.

Treatment.—We were now in a position to decide what was the best line of treatment to be pursued. It was urgent that something should be done, for the patient was rapidly wasting and being consumed with this hectic fever, and there was also the obvious risk of lardaceous degeneration of organs. It was not a case for aspirating, for in the process of aspiration we ran very considerable risk of sucking air through the lung into the pleural cavity, and so converting a pyothorax into a pneumo-pyothorax. I therefore appealed to Sir Joseph Lister for his counsel and co-operation, and he agreed with me that it was a case for immediate operation, which he kindly undertook. The result is one of the most striking triumphs of antiseptic surgery I have ever had the opportunity of seeing. On the 24th the patient was taken into the operating theatre and put under chloroform, and under the spray a crucial incision was made over the seventh left rib in about the mid-axillary line, the periosteum was separated and turned aside with the intercostal vessels, and about two inches of the rib were removed. One of the largest-sized drainage-tubes was then introduced, and sixty ounces of pus were immediately evacuated. No attempt, however, was made to completely evacuate the pleural cavity; on the contrary, the chest was rapidly enveloped in eucalyptus gauze, and the patient removed to bed. The day after the operation the temperature was 98°, and remained at or a little below normal from that time forward. The relief to all the symptoms was complete and immediate. His side felt easier, he slept well, and his cough was less. The urine was dark from carbolic acid. In the evening after the operation the wound was dressed, and, as a considerable quantity of pus had been allowed to remain in the pleural cavity, it discharged freely. The day after the operation air could at times be heard passing in and out of the wound. It was dressed, and the discharge was chiefly serous. On the 26th he had slept well; only coughed once during the night.—28th: Air whistles through drainage-tube on coughing. Cough slight, with

very little expectoration. Seven days after the operation he sat up in bed; ten days after the operation he got up. He was quite convalescent; coughed twice in the day with very slight expectoration of bronchial mucus. A fortnight after the operation he was walking about the ward looking perfectly well and rapidly gaining weight, and scarcely ever coughing. In twenty days he had gained 6¼ lb. The drainage-tube was removed twenty-eight days after the operation. Two days afterwards it was noted that no air now passed through the pleural opening on coughing. Six days after the removal of the tube there was slight discharge from the wound, but a probe could only be passed three-quarters of an inch into the opening. In less than six weeks from the date of the operation all antiseptic dressings were discontinued, and the opening in the chest was quite closed. He left the hospital six weeks after the operation, in every respect perfectly well. The following note was then made of his condition: He now weighs 9 st. 7½ lb., having gained 1 st. 1¾ lb. since the operation—i.e., in six weeks. Measurement of the chest at the level of the nipple gives the same results as before the operation—viz., eighteen inches each side. There is still some diminished expansion of the lower half of the left chest. In front there is slight loss of resonance below the fourth rib, but fremitus, though feeble, has returned, and feeble respiratory murmur can be heard quite down to the lower margin of the lung, and numerous scattered pleural frictions. Behind there is a certain amount of dulness below the eighth rib; fremitus returned, but feeble, and feeble respiratory murmur heard quite to the base. Pleural friction heard at angle of scapula. The swelling between the fourth and fifth ribs in front, which gave an impulse on coughing, has quite disappeared, but in its place there is a firm, hard thickening in the subcutaneous tissue. The heart's impulse is no longer felt in the epigastrium, and its sounds are now heard of greatest intensity in their normal situation.

Remarks.—This case is one which has shown in a remarkable manner the advantage of dealing with purulent effusions into the pleural cavity by free incision, under strict antiseptic precautions and free drainage. It shows also that the existence of a communication with the air-passages, such as we had evidence of in this case, presents no bar to rapid recovery after such a procedure, and it also shows that the existence of such an opening does not necessarily lead to decomposition of the purulent contents of the pleural cavity. I have said that in this case the opening was probably valvular towards the lung, and only pushed open when the tension in the pleura reached a certain degree. But Sir Joseph Lister believes, and has told you, that the presence of the ciliated epithelium along the bronchial passages tends to keep septic particles which may be in the air from reaching the periphery of the lung, and that even though a little air may have escaped into the pleural cavity it would do no harm. Certainly in this case the pus was perfectly sweet and free from organisms, and there was never any auscultatory evidence of air in the pleura. The rapidity and completeness of the recovery in this case were most astonishing to those of us who saw the case, and to the patient himself. He had been laid up for eight months, and when he was admitted into the hospital, and until the date of the operation, he was wasting rapidly from hectic fever; he had lost nearly 5 st. in weight. His temperature fell immediately after the operation, and never rose above normal for the remainder of his stay in hospital. He was able to get up ten days after the operation, and a fortnight after he was walking about the ward to all appearance perfectly well. Within six weeks of the operation he was able to leave the hospital quite recovered and without dressings of any kind. The patient is now before you, and his ruddy, healthy appearance is the best commentary on the treatment which has been followed in his case.

ST. JOHN AMBULANCE ASSOCIATION.—The large railways in India and the Colonies are devoting attention to the importance of Ambulance instruction for their employés. In India classes in connexion with the Bombay Centre of the St. John Ambulance Association have been formed on the B.B. and C.I. Railway. In Canada a meeting has been called at Montreal for the same purpose on behalf of the officials of the Grand Trunk Railway. Certificates have lately been presented at Gravesend, at Hertford, and at Waterford. Meetings to form new branches have been held at Nuneaton and at Devonport.

ON THE COLD BATH TREATMENT OF ENTERIC FEVER.[1]

BY SIDNEY COUPLAND, M.D., F.R.C.P.,
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IN the remarks I propose to make upon what is called the "cold bath treatment" of enteric fever I do not intend to discuss at any length the *rationale* of the treatment. This has been done by many—by no one more clearly or scientifically than by my friend and senior colleague, Dr. Cayley,[2] whom I should have much preferred to have opened this question to-night, his knowledge and experience being so much greater and more thorough than mine; and I feel bound to express my personal obligations to him for example and precept on this very important method of treatment, which seems to be founded on sound pathological data. My own experience is based upon cases of enteric fever admitted under my care at the Middlesex Hospital, in which I have endeavoured, imperfectly, to act upon the principles to which I refer; and my choice of this subject has been mainly influenced by the desire to formulate the results of this experience, which I will endeavour to do with impartiality.[3]

In dealing with a case of enteric, or indeed any specific fever, three distinct lines of treatment are open to us, which may be termed the specific, the expectant, and the antipyretic. Of the first of these I can say nothing, for, in spite of much advocacy on the part of some, it is plain that we have not yet attained to it. It means the employment of measures directed against the special poison or germ of the fever—an antidotal or germicidal method, according to the view held as to the pathogeny of the disease. In enteric fever, such remedies as calomel, iodine, carbolic acid, salicylic acid, sulphurous acid, &c., have been variously prescribed with this intent; but the fact that none of them have become universally adopted is enough to show that their influence has been overrated. Even with such notable examples as syphilis and malaria in view, it behoves us to be most sceptical about the value of "specifics" in any disease, although no one can assert that such may not some day be found. For my own part, I am inclined to think that the increasing evidence in support of the germ theory of these diseases, instead of giving hope of such a consummation, points rather the other way, for the introduction into the human body of an agent sufficiently powerful to neutralise or destroy the morbific virus would be likely to produce dangers as great as, or even greater than, those it is intended to avert.

The expectant treatment is that which is most generally adopted. It recognises the futility (at present) of seeking for specifics, and reserves itself for emergencies as they arise. It is not pure empiricism, for it acts upon the knowledge of the specific lesions of the fever, and is directed to mitigate the effects of these lesions, to control excessive diarrhœa, check hæmorrhage, give rest to the inflamed and ulcerated bowel by careful regulation of diet, to relieve the bronchitic and pulmonary symptoms, and to check excessive rise in temperature. In so far as antipyretic methods are resorted to, only when the fever attains dangerous heights do they fall under the head of "expectancy," and as such they have been practised from all time. The fever has been treated symptomatically. This treatment also guards against, and deals with, complications of the fever, whether these be due to the local lesion, as peritonitis, or to the pyrexia, as in the administration of stimulants to maintain the flagging heart; and, finally, it has to deal with such sequelæ as may arise out of the changes induced by the long-continued fever.

Now the third method, that upon which I have undertaken to dwell, is based on the recognition of the continued pyrexia being of itself an element of danger, not only from actual excess of body-heat, hyperpyrexia, but from the secondary

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[1] A paper read before the Medical Society of London, Feb. 18th, 1884.

[2] Croonian Lectures on the Etiology, Pathology, and Treatment of Typhoid Fever. London: Churchill. 1880.

[3] The reports of the medical registrars of the Middlesex Hospital for several years past contain detailed analyses of the cases of enteric fever treated in that institution. I have utilised information obtained from these reports in this paper; and I must take this opportunity of thanking my friend, Dr. J. W. Browne, for allowing me the use of the proof sheets and manuscripts of his reports for the years 1881 and 1882.

effects of continued fever, the excessive tissue metamorphosis and degenerations, particularly as seen on the circulatory and nervous systems, with the consequent tendency to fatal hypostatic congestion of the lungs. Those who advocate the antipyretic treatment to be systematically adopted, believe that its adoption would result in a greatly diminished mortality, and in a very marked difference in the condition of the individual patient as regards physical and mental vigour, during convalescence. Dr. Brand of Stettin,[4] who for more than twenty years has been the consistent advocate of systematic cold bathing in fever, goes further than this, and avers that his experience justifies the assertion that in controlling the pyrexia from the first, the specific lesions of the fever do not run through all those stages which we mostly think to be inevitable—in other words, that the swollen and infiltrated follicular glands do not pass on to ulceration, so that diarrhœa, hæmorrhages, and perforations are unknown, and typhoid is robbed of its terrors. If this be true, and I am not in a position to either confirm or confute it (for I have not found it possible to carry out the Brand method in its entirety), there is barely any room for expectant treatment, and anxiety as to the issue would depend mainly upon the previous condition of the individual. Brand in his own practice states that of 381 hospital cases fifteen died, a mortality of 3·9 per cent., and of 257 cases in private practice all recovered. No wonder that his faith in the Wasserbehandlung is great, and his belief, shared by his pupil Glenard, firm that could every case of typhoid fever be subjected to such treatment from the first it would cease to be a fatal disease. I may add that he explains this influence not only upon the pyrexia, but upon the specific lesions, by the ingenious assumption that the development of the typhoid germ, or rather the typhoid process, is arrested by refrigeration as fermentation is by cold. I do not ask your acceptance of this hypothesis, but desire to deal with the antipyretic treatment on the sole ground that it controls pyrexia.

The means at our disposal for carrying out this treatment are (1) drugs, and (2) the external application of cold.

The drugs on which most reliance can be placed are quinine in large doses, salicin or the salicylates, and kairin, the newly introduced agent; but digitalis, veratria, and other powerful remedies have been occasionally employed. In my own cases I have been content to prescribe quinine in ten- or twenty-grain doses, generally as an adjuvant to the bath or cold sponging; in but a few cases have I given salicylate of soda, and in only two kairin. It is no part of my present purpose to speak of the respective merits and demerits of these remedies, but I should like to state my conviction that it would not be wise to adopt either one or the other on the same systematic plan as is done in the treatment by cold, especially as we cannot speak with such confidence upon the mode of action of a drug as we can of the action of cold. There are some who have observed deleterious effects arise from the use of quinine, and it is not always tolerated by the stomach. As to kairin, a very powerful antipyretic, but of very transient action, I submit that although it may be safely given in some cases it is not without danger in others. I cannot speak from any experience on this point, for it was only given for a short time in the two cases in which I employed it; but Mr. Fardon, the resident medical officer of the Middlesex Hospital, tells me that in two cases which were under this treatment, the subsultus, tremors, delirium, &c., remained during the depression of temperature as in high fever, these symptoms disappearing after the bath had been substituted for the drug.

The means of reducing excess of body-temperature by cold include, amongst others, affusion, sponging, the compress or ice-bag, and the cold bath. Of affusion (save in connexion with the bath) I have no experience, although I believe that Currie attributed much of his success to the stimulant action of this measure on the torpid nerve-centres in fever. But I will say a few words upon each of the other methods, and their application.

1. *Sponging.*—The face, trunk, and upper limbs are sponged over for a period of ten or fifteen minutes with either tepid or ice-cold water (it is best to commence the treatment with the former) whenever the temperature of the body reaches 102° F. The practice is generally, but not invariably, followed by a fall in temperature, which is not, as a rule, of more than 2° or 3°—a fall the extent of which depends more upon the stage of the fever than anything else. For in the later weeks of an attack the temperature is more labile; the effect produced by sponging is more marked than in the earlier weeks, or when the fever is at its height. And it requires very frequent repetition to be at all effectual in attaining the object of preventing the pyrexia becoming severe. In consequence of this, sponging alone is open to grave objection; for if it be carried out on the strict principle, it involves so frequent a disturbance of the patient that he is deprived of continuous sleep. Moreover, I have met with cases in which, for this reason and for others, the bath has been preferred by the patient. Both methods may be combined in severe cases, the sponging being employed to obviate too frequent recourse to bathing. It has the advantage of not requiring the removal of the patient from his bed, and may be used when bathing is contra-indicated.

2. *The Compress.*—This consists in the application to the surface of the body or of a limb of cloths wrung out in ice-cold water, and it is had recourse to at the same temperature as the sponging, and on much the same grounds. It is also useful in cases of moderate pyrexia; but, like sponging, it does not reduce the temperature to the extent that the bath does. The compress should be changed very frequently, and its application continued so long as the temperature remains above 99°, so that it requires very constant attention on the part of the nurse. Here, again, the disturbance of the patient interferes somewhat with sleep. I have employed it in a few cases as the sole antipyretic agent, and am convinced of its efficacy. It is especially useful as a substitute for the bath in the later stage of the disease, when there is much abdominal distension. I should add that in all cases of treatment by the application of cold the patient is kept only covered by a sheet and thin coverlet.

3. *The Bath.*—This is undoubtedly the most powerful antipyretic agent we possess, and the only measure that has succeeded in saving life threatened by hyperpyrexia. Even those who mistrust its routine employment in typhoid fever recognise its power, and no one would dispute its efficacy or value as a last resort in such urgent cases. But it is the employment of the bath to control the whole course of the fever that I am considering. Brand's rules are explicit enough; he urges the early commencement of the treatment, and the repetition of the bath every three hours if the temperature rises to 102·2° F. (39° C.) in the axilla, the temperature of the bath not being above 68° F. (20° C.). I have myself so far departed from these rules as to prescribe the bath at a temperature of 103° F., and in several cases it has been necessary to repeat it in three hours, when the fever is at its height. The usual temperature of the bath was 75° F. or 70° F., and its duration ten or fifteen minutes, but both these conditions are varied according to the way in which the patient bears the immersion. In some, especially spare people, the graduated bath—i.e., commencing at 90° F., and cooled to 75° F., with longer immersion, or one at 85° F., is borne better than the colder bath of shorter duration. It often happens that the temperature of the body has risen above 104° F., in spite of hourly observations between the baths, when the next bath is given. Again, in very severe cases, to one of which I shall allude in greater detail presently, hardly any reduction in temperature is effected, or the actual reduction and duration of after-fall is so slight that within a very short time the fever has risen to its previous height.[5] Dr. Ord has recommended the graduated bath, and says that it is most efficient and most safely applied early in enteric fever, but he does not think it necessary to repeat it at shorter intervals than twelve hours, "an apparent revival of the temperature often subsiding after such a period."[6] It may be that the cooler bath acts as a more powerful stimulant on the nerve-centres, more resembles Currie's affusion than the warmer, but in either plan the difference between the temperature of the body and that of the water is great enough to give rise to a considerable amount of "shock." Shivering is of course an invariable result of the immersion, and sometimes this is so severe as to necessitate the curtailment of the process; I have rarely seen any serious collapse occur, but often consider it advisable to administer a little stimulant. Much of course depends on the mental attitude adopted by the patient; it is not as in hyperpyrexia, where we have to deal with one perhaps semi-comatose; but

[4] Die Wasserbehandlung der Typhösen Fieber, von Dr. E. Brand. 2te Aufl. Tübingen, 1877. His first monograph on the subject appeared in 1861.

[5] An analysis of the very varying effects upon the febrile temperature, wholly unrelated apparently to the initial temperature or duration of the bath, will be found in the Report of the Committee on Rheumatic Hyperpyrexia, Clin. Soc. Trans., vol. xv.

[6] St. Thomas's Hospital Reports, 1879.

at a temperature of 103° F. the patient is fully conscious, only wakeful, restless, and uncomfortable. No wonder then that he does not at first like being plunged into water of the temperature of 70° F., and occasionally the dread of the bath is so great as to render it unadvisable to pursue it, when one has to rely upon other antipyretic measures. Those who do submit to the temporary discomfort soon, however, come to appreciate its advantages, and even to look forward to the repetition of the bath, for with hardly an exception the patient afterwards sinks into a calm sleep, and for a few hours at least is in a state of unwonted comfort.

Apart from special contra-indications, the bath has the disadvantage of being difficult of application under all circumstances, an objection which will apply with special force to private practice; but I do not think its employment should be abandoned without an effort, seeing how much it ministers to the well-being of the patient. Again, in hospitals with many fever cases under treatment it would hardly be possible to carry out the routine treatment with the ordinary complement of nurses and attendants, unless some special means were devised to relieve them of the strain and labour involved in lifting adults in and out of a bath.[7] The bath should be large enough to allow of the patient being completely immersed, except the head and shoulders, which may be douched and sponged. After the immersion and removal to bed the body is very lightly dried, and only a light covering placed over the patient, unless there be much shivering, when his feet are wrapped in a blanket. It is not necessary to take the temperature of the body (if so it must of course be a rectal observation) when in the bath or immediately on coming out. It suffices to make the observation half an hour after removal, and repeated at intervals of one or two hours subsequently.

The comparative superiority of the bath to other methods, where these latter have been adopted in preference or as alternatives, is shown in charts. It may be expressed in the statement that the daily mean of the temperature is much lower under bath treatment than under compresses or sponging; for although the maxima may be higher in the one case, the minima are lower.

Once more let me point out that the object of systematic antipyretic treatment is not to meet the emergency of a hyperpyretic storm, but to safeguard the organism from the effects of continued fever. The mode of action of the methods employed for this purpose may not be the same; it is unlikely, to say the least, that quinine or kairin acts in the same way as sponging or the bath; but it is highly probable that the powerful effects produced by the external application of cold are due as much to the rousing into action of the heat-controlling centres, which are paralysed by the specific virus, as to the mere abstraction of heat. Moreover, the whole effect of the bath may not be merely because it lessens heat expenditure or heat production; it may not be a mere question of diminished body heat; it may also operate upon the central nervous system generally, and be beneficial for other reasons than those of subduing fever only. Certain it is that patients submitted to this treatment pass through their fever more easily, and have fewer of the more serious sequelæ which are liable to occur in cases where no such treatment is adopted.

In estimating the value of any therapeutic measure, we naturally inquire, firstly, what influence it has upon the mortality of the disease, and, secondly, what is its effect upon the course of the disease. The first requires an appeal to statistics. These are open to the objection that it is assumed that in the disease that is analysed the conditions and the rate of mortality are constant, or nearly so. Now this is obviously not the case with the specific fevers, the mortality varying considerably with the type of the epidemic, the hygienic surroundings, and the individual himself. I have placed before you the number of cases of enteric fever admitted into the Middlesex Hospital in every year from 1867 to 1883 (inclusive), with the annual rate of mortality, which has ranged from 28·8 per cent. in 1876 (forty-five cases) to 2·5 per cent. in 1880 (forty cases). The mean mortality for the whole period of seventeen years is 14·8 per cent. of 823 cases admitted, or

	Cases.	Deaths.	Rate.
In 5 years ending 1871	 151	 20	.... 13·2 per cent.
In 4 years ending 1875	 155	 28	.... 18·9 ,,
,, ,, 1879	 213	 34	.... 15·9 ,,
,, 1883	 294	 40	.... 13·6 ,,

From figures given by Dr. Cayley in his lectures, as well as from others I have gathered from hospital reports, we may take it that the mean mortality from this disease in the London hospitals is about 15 to 18 per cent. The rates of mortality in hospitals are no doubt higher than in private practice, among the upper and middle classes, where the care of the patient begins as a rule earlier than in hospitals; for no matter whether the treatment be "expectant" or "antipyretic," the earlier the case is cared for the more hopeful is the outlook. But it is maintained by Brand and his followers that the rigid adoption of the bath treatment will diminish the mortality to a far greater extent than does treatment upon the expectant plan. I have already mentioned Brand's general statistics, and will content myself with drawing your attention to those figures published by various authorities in Germany, where the adoption of Brand's system is well nigh universal, and where its results have been so favourably regarded that the Imperial Board of Health issued instructions directing it to be carried out in the army.

Enteric Fever Mortality Statistics.

	Expectant Treatment.			Bath Treatment.		
Brand (from all sources)	8236 cases	21·7 per cent. mortality		8141 cases	7·4 per cent. mortality	
Jürgensen (Kiel) 1850–61	350 ,,	15·4 ,,	,,	— ,,	— ,,	,,
Jürgensen (Kiel) 1863–66	— ,,	— ,,	,,	160 ,,	3·1 ,,	,,
Liebermeister (Basle) 1843–64	1718 ,,	27·3 ,,	,,	— ,,	— ,,	,,
Liebermeister (Basle) 1865–66	746 ,,	21·3 ,,	,,	— ,,	— ,,	,,
Liebermeister (Basle) 1866–74	— ,,	— ,,	,,	1163 ,,	11·2 ,,	,,
Liebermeister (Tübingen) 1860–71	61 ,,	23·0 ,,	,,	— ,,	— ,,	,,
Liebermeister (Tübingen) 1871–80	— ,,	— ,,	,,	110 ,,	5·5 ,,	,,
Mosler (Greifswald)	— ,,	— ,,	,,	29 ,,	3·5 ,,	,,
V. Ziemssen and Immermann (Erlangen)	63 ,,	30·2 ,,	,,	32 ,,	9·4 ,,	,,
Goltdammer (Berlin)	— ,,	18·1 ,,	,,	— ,,	13·2 ,,	,,
Glenard (Lyons)	— ,,	26·0 ,,	,,	— ,,	9·0 ,,	,,
Mayet (Lyons)	— ,,	14·43 ,,	,,	— ,,	10·74 ,,	

This matter of mortality may, however, be scrutinised more deeply. We may inquire whether the mode of death, or, rather, the immediate cause of death, has undergone any change since the adoption of antipyretic measures. I think it has, and that the greater regard paid to the evil influence of continued pyrexia, even where Brand's method has been only partially followed, has resulted in a remarkable alteration in these respects as well as in the period at which the fatal result occurs. I have compared the fatal cases which occurred in 1873 at the Middlesex Hospital, when I was

[7] Thanks to Mr. Fardon, who planned the idea of a mechanical arrangement to relieve nurses from this task, and to Mr. Hawksley, who constructed the apparatus, we have had for the past four years at the Middlesex Hospital the apparatus shown in the adjoining room. It is not very sightly, but is very serviceable, and consists of a large wooden frame on wheels, about five feet and a half between the uprights, the crossbar above being about seven feet from the ground. This is large enough to stand across the bed and the bath which is drawn by the side of the bed; and by means of an endless chain and pulley a hammock can be slung parallel with the bed, the uppermost pulley being attached to rollers which run on a horizontal metal bar beneath the crossbeam. The apparatus being in position and the patient prepared, the canvas webbing of the hammock is passed under his body, the hammock poles adjusted and attached by ropes to the lower pulley; the hammock is now raised by means of the pulleys, and when it has cleared the level of the bed, it is run along until it comes over the bath, when the action of the chain is reversed, and he is gradually immersed. The bath is a large one: about six feet and a half long at its upper part and five feet and a half at its base, and a foot and a half deep. Its width is twenty-eight inches at the head and eighteen inches at the foot. It runs on wheels furnished with rubber tires, and is furnished with a tap for withdrawing superfluous water. A square and a circular water pillow are placed in the bath, the former supported on an inclined plane at the head, so that the patient's shoulders may be a little raised.

medical registrar, with the series of eighty-nine cases which form the basis of my present paper. In that year (1873) seventy-five cases were admitted, of whom nine died. One severe case of hyperpyrexia was treated by the cold bath, and recovered; but systematic antipyretic treatment was not in vogue. Of these fatal cases four were admitted in the *first* week of their illness, three of whom died within a fortnight from pulmonary congestion and high fever, and one, a severe case marked by high fever, at the end of the fourth week from perforation of the bowel. Two of the cases were treated from the *second* week, one dying from pulmonary congestion in the fourth week, the other after two months' stay from a rare sequela—suppurating mediastinal glands. Two cases of *relapse* proved fatal from perforation; and one case (date of illness not known) from meningitis during convalescence. In my series of eighty-nine cases, I find that the seven fatal cases may be thus distributed: one case of perforation was in a man who unfortunately contracted the disease during his convalescence from acute rheumatism; not one of the twenty-seven cases admitted in the *first* week were fatal; of the forty-one cases admitted in the *second* week, one died of perforation;[8] of the eleven in the *third* week, one died from perforation; the other deaths were in cases of *relapse* (one from pulmonary congestion), except one who died from cardiac disease after the fever had passed away. If this comparison be a fair one, it points to this fact, that early submission to treatment on the expectant plan did not prevent cases dying from pulmonary congestion—i.e., the direct effect of the pyrexia; whilst the only case of death from that cause in the antipyretic series was in a case of relapse.

Applying the same mode of comparison on a larger scale, I have examined the records of the 94 fatal cases of enteric fever that occurred in the hospital from 1873 to 1883 inclusive, and have drawn them up in a tabular form, as well as illustrated the point diagrammatically. Contrasting the two periods (one of six years—viz., 1873–78, and one of five years, 1879–83), I have endeavoured to distinguish those cases which proved fatal (*a*) from the direct effects of the pyrexia, (*b*) from the local intestinal lesions, (*c*) from intercurrent affections complicating the fever, and (*d*) from sequelæ:—

1873–78. 278 cases: 45 deaths: (*a*) Hyperpyrexia and pulmonary congestion, 22; pneumonia, 2—total, 24. (*b*) Intestinal perforation, 11; hæmorrhage, 2; pyæmia following extreme intestinal ulceration, 1—total, 14. (*c*) Pleuro-pneumonia, 1; septicæmia (early), 1—total, 2. (*d*) Peritonitis (late), 1; suppurating mediastinal glands, 1; meningitis, 1; diphtheria, 1; asthenia and suppurating broncho-pneumonia, 1—total, 5.

1879–83. 365 cases: 49 deaths: (*a*) Pulmonary congestion, &c., 10; syncope, 1—total, 11. (*b*) Perforation, 24; hæmorrhage, 7; severe diarrhœa and collapse, 2—total, 33. (*c*) Acute nephritis, 2. (*d*) Asthenia (bedsores), 1; phagedæna of the face, 1; thrombosis (mitral disease), 1—total, 3.

Thus the rate of mortality on the whole number of cases admitted was in the first period 16·2 per cent., the rates under each of the above heads being—(*a*) 8·7 per cent., (*b*) 5·0 per cent., (*c* and *d*) 2·5 per cent. In the second period the rate was 13·4 per cent., and was thus made up—(*a*) 3·0 per cent., (*b*) 9·0 per cent., (*c* and *d*) 1·4 per cent.

It may be a mere assumption on my part to argue that the singular diminution in mortality of late years from what I may call pyrexial causes is due to a more extended pursuance of antipyretic methods, especially as such treatment was in vogue, although I believe less rigidly, before 1879; but when taken in conjunction with a similar amelioration in the clinical course of the fever, the assumption may be of some value. Unfortunately the deaths from intestinal lesion have *pari passu* increased, but this is a point upon which I shall remark again, as it opens up ground for serious consideration.

(To be concluded.)

[8] This patient was not treated by the bath.

THE subscription to the Manchester Hospital Sunday Fund, paid into the bank up to the 15th inst., amounted to £3569 8*s.* 10*d.*, but as many collections are yet unaccounted for the total amount collected will probably be largely in excess of this sum. The Hospital Saturday collection was held on the 16th inst.

ON SOME

RECENT IMPROVEMENTS IN RHINOSCOPY, AND IN THE TREATMENT OF NASAL POLYPI.

BY W. SPENCER WATSON, F.R.C.S. ENG.,
SURGEON TO THE GREAT NORTHERN HOSPITAL.

ANTERIOR RHINOSCOPY.

WHATEVER light we employ for inspecting the nostrils from the front, the best way of directing it into them is to employ a concave mirror of six-inch focus, with a central aperture, behind which a biconvex lens can be adapted. The mirror should be supported on a spectacle-frame by a ball-and-socket joint. The observer's eye can then be brought into a line with the centre of the illuminated part of the nostril, that centre being also very easily made to correspond with the focus of the mirror, and so to be more strongly illuminated than the parts around. The brightness of this focal centre is thus contrasted with the comparative darkness around it, and the visual impression becomes correspondingly intensified. The short focus of the mirror allows the observer's eye to approach nearer to the parts than does the old laryngoscopic mirror with its nine-inch focus, and the lens behind the central aperture enables him to get a magnified view at this distance, or if necessary to correct any defect of vision, such as hypermetropia, presbyopia, or myopia in his own eye. But it is worth noticing that at the short distance attainable by this method a myopic observer would be at no disadvantage without the use of a lens, unless the degree of his myopia happened to be extreme. In that case he could employ a concave lens behind the aperture of the mirror. For these reasons I consider the short focus mirror (made for me by Messrs. Krohne and Sesemann) with the central aperture, and a movable clip for the adaptation of a lens behind it, to be a great improvement on the laryngoscopic mirror for anterior rhinoscopy. It is important to warm both mirror and lens when they are used in cold weather, otherwise the condensed breath dims their lustre. Rumbold's small nasal mirrors may be mentioned as a useful adjunct to the other appliances for anterior rhinoscopy. They are particularly useful when we wish to obtain a view of the interior of the nostril immediately under the tip. They are also sometimes available for inspecting the inferior and middle meatus.

For examination of the posterior nares I use the ordinary concave laryngoscopic mirror of nine-inch focus, but I have made a slight modification in the pharyngeal mirror. The shank or stem is set on close to the frame of the plane mirror, and without any curved stalk, as in the instrument usually supplied by the instrument makers. In my new instrument there is a gain of about one-eighth of an inch; its actual diameter is three-fifths of an inch. This enables the mirror without any loss of reflecting surface to move more freely in the pharyngeal space, with less liability to its coming in contact with the velum palati or the posterior wall of the pharynx. Posterior rhinoscopy is, I believe, rarely successful. Sometimes I have succeeded, to my own surprise, the patient appearing to allow his velum palati to fall into position, and his tongue to lie well down without any effort or directions from me on the subject. These favourable conditions, however, are the exception. As a rule, the tongue-spatula must be used, and the base of the tongue depressed as low as possible in the fauces, but before introducing it or any other instrument I generally direct my patient to make short catching inspirations and expirations in rapid succession, to pant, in fact, as if out of breath, and I ask him to attend particularly to the movements of his chest, and not to his throat. I try to impress him with confidence by telling him that I will look after his throat if he will only diligently persevere all through my examination with the short shallow chest movements. This has often been successful, rather, I believe, from the fact of the patient's attention being diverted from his throat, than from any specific value in the panting respirations as influencing the position of the velum. That it has helped in some way or other I am quite sure, but I have at present formed no definite theory as to the exact way in which the result is attained. I have not tried any of the complicated

mechanical appliances, such as Voltolini's, for drawing forwards and fixing the soft palate. I think such instruments would be rarely tolerated by any patients except those specially trained for the purpose of laboratory experiments and scientific demonstration. The only mechanical means for drawing forward the soft palate that commends itself to me as worthy of trial is that devised by Mr. Walsham, who uses indiarubber tubes passed through the nostrils into the pharynx and out through the mouth. By drawing firmly but gently on the ends hanging from the mouth and nostril respectively, the palate can be drawn forward and fixed to any extent desired. This, however, involves a preliminary operation, somewhat tedious and annoying to the patient. Still, as a preliminary in cases requiring operative treatment, I think such a method of examination would be amply justifiable.

SOME NOVELTIES IN THE TREATMENT OF NASAL POLYPI

In the removal of polypi, whether by snare, forceps, or cautery, it is very difficult to be quite sure that the whole of the growths have been extracted. It is probably due in part to this uncertainty that polypi are so liable to recur. Often no doubt rootlets or fragments of one or more of the growths remain behind. If therefore we can by more thorough extirpation avoid this uncertainty the chance of recurrence is so far diminished; for though it is possible that the diseased mucous membrane has a tendency to reproduce the same morbid overgrowth, yet, *ceteris paribus*, the more complete the operation the less will this tendency show itself. The object then to be attained is to detach the polypi as close to the bone as possible, and it is even better in some cases to remove a portion of the turbinated bones with them. It is generally tolerably easy to get away those polypi which hang near the anterior apertures of the nostrils, but for the complete removal of those more deeply situated the usual methods are often insufficient. To meet this difficulty I have devised the polypus ring-knife (made by Messrs. Krohne and Sesemann). It consists of a rod of softish steel (which allows of being somewhat bent to any desired curve) which, with the handle and the ring-knife, measures eight inches and a half. The handle resembles that of a door-key, and is large enough to admit two fingers; at the other extremity is the knife, of oval form and one inch and a quarter long, being at its widest part five-eighths of an inch broad. The outside of this ring is thick and blunt, its inside bevelled, and with a cutting edge extending round the semicircle farthest from the handle. The knife when used is passed along the lower part of the nostril with its sides parallel to the septum, until it reaches the posterior aperture of the nares. At the same time the forefinger of the left hand is passed behind the velum palati and hooked up in the posterior aperture of the nostril. If there are any pendulous portions of polypus in the pharynx they can now, by a little manipulation, be slipped through the ring of the knife, which is then directed by the finger towards the outer wall of the nostril. The instrument is then slowly withdrawn, and, as it passes forward, is made to scrape away the polypi from their attachments to the bone. The operation is necessarily painful, and can be best done under an anæsthetic, the mouth being kept open by the use of a Mason's gag. The instrument thus used can be directed with considerable precision, and is, I think, preferable to forceps, when the polypi are deeply seated, and especially when of the sarcomatous or firm myxomatous variety. If the antrum is involved, the blade may be passed into it after the curve of the shank has been somewhat altered. But to reach the extreme depths of this cavity the ring-knife used by Meyer for adenoid vegetations of the pharynx is well adapted. I have succeeded quite recently in clearing out the antrum with these two instruments in a case of recurrent myxo-sarcomatous polypi, without laying open the alæ nasi. In this case, however, I followed up the treatment by the application at intervals during several months after of the acid pernitrate of mercury to spots on the surface of the mucous membrane, at which there seemed a tendency to return of the growths. The application of nitric acid, or acid pernitrate of mercury or similar fluid escharotic, in such a narrow channel as the nostrils seems at first sight a somewhat formidable and dangerous proceeding; but when carefully done with the aid of the platinum cannula, and under a good light from the short-focus mirror, the proceeding is not really dangerous nor painful. The platinum cannula is guided carefully to the spot to be cauterised. A pencil of wood previously dipped into the acid is then passed along it, and when it reaches the aperture in the cannula is made to press against the diseased tissue. The surrounding parts are thus completely protected, and if the point charged with the acid is again drawn into its sheath before the instrument is withdrawn only a limited area of mucous membrane is touched. A slough, of course, forms, and becomes detached in the course of a week, or less. This plan has succeeded very well in some of my cases. It should, I think, be employed in all cases of polypi, whether gelatinous or sarcomatous, after the removal of the principal mass, but, of course, only after such an interval has elapsed from the time of the first operation as to allow of all swelling having subsided, and so to enable the operator to get a clear view of the parts with the rhinoscopic mirror. From three weeks to a month from the first operation is about the best period. It is, I think, only by repeated applications at intervals of a few weeks for several months that we can hope for a satisfactory result. I am not prepared to say that this plan is never followed by recurrence of the diseased growths, but I think it offers a good prospect of retarding it in all cases, and it has certainly appeared to me to delay the recurrent form of polypi from reappearing for an indefinite time.

Henrietta-street, W.

ON THE

INFLUENCE OF SMALL-POX HOSPITALS.

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PHYSICIAN TO THE CHELTENHAM GENERAL HOSPITAL.

No. II.

IN my last communication I dealt with certain points deserving of notice in the small-pox epidemics of 1876–77. I now proceed to deal with those that followed; and in the epidemic period from January to August, 1878, pretty much the same history is found to be repeated, except that the Fulham district suffered more severely from the disease. Small-pox, which had never died out in the metropolis, began again to spread in January, 1878, and the admissions to the Board hospitals generally and to Fulham Hospital advanced in something like equal ratio, and with tolerable regularity, up to March 23rd, when in two successive fortnights, not only did the small-pox mortality in the metropolis advance from 95 (in the fortnight ending March 23rd) to 103 and 138 (the highest point of the epidemic) in the two following fortnights, but the admissions to the Board hospitals sprang in the same periods from 262 to 366 and 473. There was also a simultaneous increase round Fulham; for the houses newly invaded "in the special area," which were 12 in the fortnight from March 9th to March 23rd, rose in the two following fortnights to 20 and 49 (the highest point), five only of the latter being within the quarter-mile circle. No considerable increase took place in "the special area" until April 6th; yet from Jan. 1st to March 23rd 160 acute cases and 314 convalescents had been received into Fulham Hospital, and in the fortnight succeeding the largest fortnightly admission of acute cases—viz., 115 on April 20th[1]—when their influence would presumably be most marked, the invasions over the special area fell from 49 to 23, and from this time the epidemic steadily declined both in the metropolis and in the special area, until in August it was practically extinct in both. A comparison of Mr. Power's map (B) for Jan. to Aug., 1878, with the map A (2) for March, 1877, to the close of the year, shows a dying out of small-pox at the point K [2] at Kensal-green (probably from exhaustion of material). It exhibits at the same time a notable increase round the points previously shown to be invaded, not only to the eastward and west of the hospital, but onwards to Hammersmith, which lies well beyond the special area of Mr. Power's report. The increase here noticed can scarcely cause surprise when we read in Dr. Dudfield's Report for 1878 that many cases in Fulham parish had been "concealed and kept at home," while others became known "only on the registration of a death."

We have then in 1878: 1. A second epidemic which, especially in the Fulham neighbourhood, might be considered as scarcely separated from the first in 1877. 2. The extension

[1] See Report of the Hospital Commission, p. 361, Sect. 5, "Sudden Outbreaks." [2] See first paper.

and decline of the epidemic over "the special area" presented no feature peculiar to itself, but as regards time and extent corresponded in a remarkable degree with the increase and decline of the epidemic over the whole of London. 3. The special outburst in "the one-mile area" occurs not at the commencement of the epidemic, but at its height. 4. The admissions of over one hundred acute cases of the disease to the hospital does not appear to have increased the incidence of small-pox in "the special area." 5. Considering the facilities afforded by previous cases around the hospital, and especially those which were concealed, for the spread of small-pox, considering also the severity of the epidemic and its extension when no hospital existed, there seems no *primâ facie* reason for seeking other than the ordinary sources of infection for the twenty cases of invasion in the quarter-mile circle spread evenly over the period from February 23rd to July 27th, and once only exceeding two in the fortnight, or for the 191 other invasions in the special area, which rose and fell *pari passu* with the epidemic over all London, governed apparently by the same laws.

Passing to the epidemic period 1878–79, we find a general recrudescence of the disease over London in September and October, reaching its highest point in February, 1879, when the mortality was forty-five in the fortnight and the admissions to the Board hospitals 167. The advance on the three parishes was later and the disease did not reach its highest point in them until May and June, but we learn from Dr. Dudfield's report for 1878 that the outposts had been early and firmly established within these borders. A first outbreak had taken place at Brompton at the close of 1878. "There had been only one known case of the disease, and that in the north of the parish during the three or four months, August to November, 1878, but in December a concealed and fatal case occurred in the Fulham-road. Between that date and the end of January, 1879, eight other cases occurred, and of these five were treated at home. Thus, to say nothing of concealed cases of which we subsequently obtained information (two consecutive cases in one room and many others subsequently), we had six centres of infection at the very commencement of the fresh outbreak. It happened, moreover, as it nearly always does when an epidemic first breaks out, that the fresh cases were not reported."[3]

From Mr. Power's table C (1) we learn that the first decided increase in newly invaded houses over "the special area"—namely, from 1 between Dec. 14th to the 28th, to 7 between Dec. 29th and Jan. 11th—took place when there were not 20 acute cases in the hospital.[4] On Jan. 11th, 1879, the admissions to Fulham Hospital rose to 15 in the fortnight, most of the cases being from a distance, but very soon "Chelsea, Fulham, and Kensington began to suffer much from small-pox, and by mid-March, when small-pox in London generally had begun to decline, were contributing 20 to 30 cases a fortnight to the hospital" (Power).

The admissions of acute cases rose from 15 (Jan. 12th to the 25th) to 38 (Jan. 26th to Feb. 8th), and 56 (Feb. 9th to the 22nd); meanwhile the fresh invasions in "the special area" remained at 2, 7, and 4 for the corresponding fortnightly periods. In the succeeding fortnight ending March 8th the fresh invasions rose to 18, and both invasions and admissions kept at a high rate but in a fairly corresponding ratio, till the epidemic began rapidly to decline towards the end of June. A further examination of Mr. Power's table C (2) shows us that of the 197 houses in "the special area" invaded during this epidemic 19 only were within a quarter of a mile of the hospital, and these spread evenly over the year from January to September, never on any occasion exceeding 3 in the fortnight. There were 92 in the quarter- to half-mile ring, 63 in the half- to three-quarter-mile ring, and 23 in the three-quarter- to one-mile ring, also distributed pretty evenly over the same nine months of 1879. We notice then in this epidemic, as in those which preceded it, that the disease arising first to the eastward spread subsequently over the three parishes, and there lingered long after it had begun to die out in other parts of the metropolis. We have in consequence an independent rise and fall in the fresh invasions, dependent *possibly* on what have been aptly called "epidemic days," and upon circumstances occurring in the districts themselves. What some of these circumstances were are indicated very forcibly in Dr. Dudfield's Report for Kensington, already quoted, and his experience is probably by no means exceptional. Lastly, the distribution of cases through the successive weeks of the year seems to indicate a continuously acting agency not merely over "the special area," but, as is shown by comparing map B with map C of Mr. Power's Report, in an equal degree over those parts far to the eastward of the hospital, which have been previously noticed as the great highway by which the epidemic has advanced upon the three parishes.

In the epidemic period of 1880 we find that the disease, which had spread rapidly in London during the last quarter of 1879, had, by the end of Feb. 1880, fallen upon the three parishes with some severity. When at the most, on Jan. 17th, there could only have been some 20 acute cases in the hospital, the number of invasions in the special area rose in the following fortnight ending Jan. 31st from 3 (between Jan. 3rd and 17th) to 7, the numbers for the two succeeding fortnightly periods being 12 and 14, from which latter maximum point (Feb. 28th) the invasions fell to 8 and 2 in the two following fortnights, and then gradually died out. It seems clear, however, that these accessions were not due to anything special in the Fulham district when we mark that, as in 1878, the accessions in London generally occurred on the very same days. Thus, on Feb 14th, 1880, when the reported invasions in the special area had risen from 7 in the previous fortnight to 12, the total admission to the Board hospitals had risen from 24 to 56, and the deaths in London from 14 to 25, while the three succeeding fortnights, which in the special area gave 14, 8, and 2 fresh invasions respectively, the total admissions to Board hospitals were 102, 112, and 66, showing a remarkable correspondence, which, occurring as it does so frequently, can scarcely be a mere coincidence. Again, an analysis of the cases in the special area—Mr. Power's table D (2)—shows that there were but 49 in all during the stress of the epidemic from January to the end of March, and 7 only of these were in the quarter-mile circle, never more than two in a single fortnight; and it will be remarked that an increase which looks formidable in the aggregate assumes less alarming proportions when distributed among the areas arbitrarily fixed upon by Mr. Power. Thus, for instance, on Feb. 28th, when 14, the highest number of fresh invasions in a fortnight, were reported in the special area, 2 only of these occurred within a quarter of a mile of the hospital in an area with 432 houses and "occupied to a considerable extent by the poorer classes"—7 among the 3448 houses of the quarter- to half-mile circle, 2 among the 4224 houses of the half- to three-quarter-mile circle, and 3 among the 3569 houses of the three-quarter- to one-mile circle. Analysed in this way the incidence of the disease does not seem so extraordinary as to demand a new explanation of its occurrence.

Passing, lastly, to the epidemic of 1881, we find yet again a remarkable concurrence in the rise and fall of small-pox in London generally and in the special area, as may be seen in the following table:—

	Jan. 8th.	Jan. 22d.	Feb. 5th.	Feb. 19th.	Mar. 5th
Small-pox mortality (London generally).	50	69	106	107	96
Houses newly invaded in the "special area."	2	5	14	21	24

The outburst during the fortnight ending Feb. 5th, 1881, is remarkable, but it must be borne in mind that seven houses had already been reported as invaded by the 11th of January. In the five days from Jan. 26th to the 30th 32 persons were attacked in "the special area"—i. e., a circle two miles in diameter,—of which 9 seemed to be accounted for by contact direct or indirect,[5] 12 of the 32 Dr. Dudfield tells us were in Kensington, and 4 in a confined area at a distance of 1300 feet from the hospital; "one, a servant, was removed compulsorily to the hospital, her mother persisting in going out charing day by day."[6]

Turning to Mr. Power's table E (2), we find the incidence on the various circles during the fortnight ending Feb. 5th to be 7 in the 432 houses nearest to the hospital in the quarter-mile circle, 20 in the 3448 houses of the quarter to half-mile circle, 10 in the half- to three-quarter-mile circle, and 4 in the three-quarter- to the one-mile circle; and up to Jan. 17th, by which date all those concerned in the "out-

[3] Dr. Dudfield's Report, 1878.

[4] See Report of Hospital Commission, p. 358.

[5] As some stress is laid upon the proportion of cases unaccounted for in this outburst, it may be well to refer to Dr. Dudfield's evidence before the Hospitals Commission:—Q. 1596, "The 50 per cent. which you traced in Ifield-road would quite represent the proportion traceable at a distance from the hospital? A. I should say it was considerably more."

[6] Dr. Dudfield's Report, 1882, p. 69.

burst" of Mr. Power (Jan. 26th to the 30th) must have received the infection, 55 acute cases only had been received into the hospital (up to Jan 22nd only 80 since Dec. 11th, 1880), and at no time since the beginning of the year had there been even 50 acute cases at one time in the wards,[7] while in the fortnight following the introduction of 80 more acute cases, the invasions fell from 41 to 21 in the fortnight.

We have now examined in some detail the figures given by Mr. Power in his report, and what do we find?

1. In each of the five epidemic periods under review small-pox has spread from east to west upon the three parishes of Chelsea, Kensington, and Fulham, as shown by Mr. Power's maps, along a well-marked highway lying to the eastward of "the special area."

2. Areas specially affected by small-pox have not of necessity a small-pox hospital in their midst—for instance, the area K, near the Paddington Canal, in 1876–77, and Hammersmith in 1878.[8]

3. Small-pox has always established itself pretty firmly in Mr. Power's "special area" (some of the cases having been concealed) before any special outburst has occurred, and this was found to be the case even before Fulham Hospital existed.

4. Nearly two hundred cases in a fortnight have been received into Fulham Hospital without any appreciable effect upon the invasions in "the special area," while, on the other hand, notable accessions have taken place in the same area, at one time when the acute cases have not exceeded twenty in number, at another when the epidemic was nearly over, and even two months after the hospital itself was closed.

5. When the epidemic in the three parishes was not distinctly later than in London generally, the sudden accessions and recessions of fresh invasions over "the special area" show a remarkable correspondence (notably so in 1878, 1880, and 1881) with the accessions and recessions in the metropolis as indicated by the mortality and admissions to the hospitals of the Metropolitan Asylums Board.

6. The incidence of the disease in "the special area," and especially in the quarter-mile circle, if we except the epidemic of 1881, points rather to some continuous agency as its cause, and does not appear to exceed that which might naturally be expected in epidemic periods, and in such a neighbourhood, from the ordinary methods of small-pox spread, nor does it seem to require any other explanation.

In my next communication I propose to deal more particularly with the epidemic of 1881, on which Mr. Power lays so much stress, but a preliminary examination of the previous epidemics was absolutely necessary, inasmuch as Mr. Power acknowledges that his evidence is nothing if it is not cumulative. Speaking of the epidemic of 1881, he says, "Thus, it came to be seen that in this special area, at this particular moment, some heretofore unrecognised factor of epidemic small-pox had probably been in operation. As yet, however, there was no direct evidence that the hospital had been such factor; indeed, it was seen to be quite possible that the outburst in question had been the result of a congeries of unrecognised accidents in no way immediately connected with the hospital, but which were peculiar to the particular moment. Unless therefore it could be shown that in other years during which the hospital was in use for small-pox there had been exceptional incidence of the disease on the special area around it, occasion for believing the hospital to have been concerned in the outbreak of 1881 did not of necessity arise. Accordingly resort was had to study the facts of former years." I hope I have been able to show that these facts may bear a different interpretation from that which Mr. Power has put upon them, and that whatever influence the Small-pox Hospital at Fulham may have had on the spread of small-pox in its vicinity, there seems no reason, so far, for resorting to other than the usual and well-known channels of infection to account for the outbursts or extension of this disease during epidemic periods in a poor and crowded locality.

[7] Acute cases in Fulham Hospital, 1881: Jan. 8th, 8; Jan. 15th, 10; Jan. 22nd, 17; Jan. 29th, 17; Feb. 5th, 32.

[8] For important evidence bearing on this point, see Mr. Few's evidence before the Commission, p. 15 of the Report.

PORTRAITS of Her Majesty and the Prince Consort, presented by the Queen to Mrs. S. C. Hall early in 1877, have been given to the Hospital for Consumption at Brompton by Mr. S. C. Hall, in fulfilment of the wishes of his late wife.

ON THE

RELATIONS OF THE AMOUNTS OF SUGAR AND UREA IN THE URINE IN SOME CASES OF DIABETES MELLITUS.

BY E. HARRISON, M.B. CANTAB., M.R.C.S.,
AND
C. SLATER, B.A.

THE following paper is based upon a series of determinations of the amounts of urea and sugar present in the urine of three cases of diabetes mellitus under treatment at St. George's Hospital. Two were under the care of Dr. Dickinson and one under Dr. Cavafy, and by their kindness we were allowed to make the analyses. The urine of these three cases, carefully collected and measured, was examined for fourteen consecutive days, the sugar being estimated by means of Savory and Moore's Fehling's solution, and the urea by the hypobromite method, in which the volume of nitrogen evolved forms the basis of calculation. The experimental numbers given below are the means of closely accordant observations.

CASE 1.—S——, in King's ward, under the care of Dr. Dickinson. The patient was ultimately discharged much improved, having gained weight considerably.

TABLE I.

Date.	Amount of urine in 24 hours.		Specific gravity.	Sugar in grammes.	Urea in grammes.	Ratio.
	Pts.	Oz.				1 to
Oct. 3	8	5	1032	254·0	108·7	2·3
,, 4	9	0	1035	372·0	112·8	3·28
,, 5	6	6	1035	189·0	76·9	2·5
,, 6	8	0	1030	282·3	95·1	2·9
,, 7	9	5	1030	317·1	101·1	3·1
,, 8	9	10	1030	335·3	99·2	3·3
,, 9	8	8	1033	296·5	98·5	3·0
,, 10	6	0	1030	184·6	76·9	2·4
,, 11	7	0	1032	221·0	89·1	2·4
,, 12	8	14	1033	348·0	108·8	3·2
,, 13	7	0	1030	221·05	87·1	2·5
,, 14	8	6	1034	227·4	107·2	2·1
,, 15	8	10	1030	309·09	90·9	3·3
,, 16	8	0	1030	309·0	85·37	3·5

CASE 2.—F——, in Fuller ward, under the care of Dr. Cavafy. The patient died suddenly in diabetic coma a short time after the observations ceased.

TABLE II.

Date.	Amount of urine in 24 hours.		Specific gravity.	Sugar in grammes.	Urea in grammes.	Ratio.
	Pts.	Oz.				1 to
Oct. 6	10	6	1030	301·75	72·1	4·1
,, 7	8	0	1030	213·3	74·57	2·8
,, 8	5	0	1033	139·5	55·45	2·5
,, 9	6	0	1030	184·6	56·6	3·2
,, 10	10	0	1025	255·3	88·4	2·7
,, 11	10	0	1024	235·3	78·1	3·0
,, 12	9	4	1023	190·4	81·3	2·3
,, 13	9	13	1030	222·6	103·9	2·1
,, 14	11	3	1030	290·9	102·8	2·8
,, 15	6	0	1028	167·4	42·2	3·9
,, 16	10	4	1030	235·4	94·1	2·6
,, 17	6	0	1034	189·5	53·4	3·5
,, 18	6	0	1030	175·6	70·8	2·4
,, 19	6	0	1025	132·3	70·4	1·8

CASE 3.—B——, in Fuller ward, under the care of Dr. Dickinson. This was a more advanced case than the other two, the patient having been an in-patient for a previous attack from which he had partially recovered. He was unable to keep rigidly to diabetic diet, emaciated rapidly, and died soon after these observations.

TABLE III.

Date.	Amount of urine in 24 hours.		Specific gravity.	Sugar in grammes.	Urea in grammes.	Ratio.
	Pts.	Oz.				1 to
Oct. 4	16	0	1035	780·0	110·0	7·0
„ 5	10	7	1035	414·0	83·1	4·9
„ 6	8	9	1034	298·0	76·2	3·9
„ 7	8	3	1033	244·5	66·02	3·7
„ 8	10	0	1032	300·0	77·4	3·8
„ 9	10	4	1032	360·4	86·8	4·8
„ 10	8	0	1035	300·0	75·09	4·0
„ 11	8	9	1033	375·5	69·8	5·3
„ 12	9	6	1034	348·4	58·7	5·9
„ 13	10	0	1035	428·5	80·3	5·3
„ 14	7	0	1034	254·5	55·8	4·5
„ 15	5	0	1035	206·8	32·4	6·3
„ 16	5	0	1035	200·0	45·9	4·3
„ 17	5	6	1035	212·0	39·16	5·6

If the results of the above tables be embodied in the form of curves, the curves of urea and sugar thus obtained show a decided general resemblance, and rise and fall together, apparently indicating a simple ratio between them; but a glance at the ratios in the last column of the tables shows that the ratio at least is not constant. Indeed, it is scarcely probable that these numbers should show a constant relationship, the sugar being derived from both the proteids and amyloids of the food, the latter portion of course being entirely independent of the urea. The diets of the patients were as follows:—

Case 1.

Date.	Diet.	Sugar Equivalent.	Total Sugar.
Oct. 3rd to 5th	4 oz. of cooked meat ..	—	—
	1 mutton chop	—	—
	9 oz. of gluten bread ..	7 grms.	39·5 grms.
	1 pint of milk	32·5 „	
	1 pint of beef-tea	—	—
	1 oz. of butter	—	—
Oct. 6th to 14th	The same as previous days	32·5 grms.	41·8 grms.
	12 oz. of gluten bread ..	9·3 „	
Oct. 15th & 16th	1 oz. of butter added ..	—	41·8 „

Case 2.

Date.	Diet.	Sugar Equivalent.	Total Sugar.
Oct. 6th	4 oz. of meat, 2 eggs, greens	—	—
	6 oz. of gluten bread ..	4·6 grms.	70·33 grm.
	2 pints of milk	65·0 „	
	2 oz. of butter	0·15 „	
	1 oz. of cheese	0·58 „	
Oct. 7th to 11th	The same as previous day	65·73 „	75·03 „
	12 oz. of gluten bread ..	9·3 „	
	1 pint. of beef-tea	—	—
Oct. 12th to 19th	The same as 7th to 11th ..	—	10·03 grm.
	No milk	—	
	3 pints of beef-tea	—	—

Case 3.

Date.	Diet.	Sugar Equivalent.	Total Sugar.
Oct. 4th	4 oz. of pounded meat ..	—	—
	2 oz. of butter	0·15 grms.	331·65grm.
	2 pints of beef-tea	—	
	3 pints of milk	97·5 grms.	
	12 oz. of ordinary bread ..	234·0 „	
Oct. 5th	The same as previous day	97·65 „	101·75 „
	Gluten bread, *vice* ordinary	4·6 „	
Oct. 6th to 11th	6 oz. of pounded meat ..	—	—
	9 oz. of gluten bread ..	6·9 grms.	104·55grm.
	2 eggs	—	
	Rest as before	97·65 grms.	
Oct. 12th to 17th	Brown bread much toasted *vice* gluten	87·6 „	178·75 „
	Rest as above	97·65 „	

The sugar equivalent of the gluten bread was determined by direct analysis of the bread used by the patients. It was found to contain 22·7 per cent. of starch. Analyses of the other foods were obtained from the South Kensington Science Handbook on Foods, by Church. It is generally allowed that in at least severe cases of diabetes a large proportion of the sugar is derived from some perverted metabolism of the proteid food ingested, and consequently that some relation between the urea and sugar should exist, but authorities are by no means unanimous as to what that relation is. Professor Haughton of Dublin, in his paper in 1861, in which he showed the probability of the origin of the sugar of diabetes from proteid food, incidentally established a theoretical relationship between the sugar and urea. This was based on the following hypothetical reaction:—

"Protein + water + oxygen + carbonic acid = glucose + urea."

And using $C_{36}H_{27}N_4O_{25}$ as the formula for protein, he finds the relation of urea to glucose to be as 1 : 5.

The objections to the above are: 1. The assumption of an unrealised reaction. 2. The ratio is obtained by the addition of CO_2 to the proteid, and this carbonic acid must have been derived either from another molecule of proteid or from the fats or amyloids of the food, so that 1 to 5 is a ratio in excess of that which exists between the sugar and urea derived from a single molecule of proteid as represented in the equation.

The true theoretical ratio may be determined by a method employed by Dr. Michael Foster in a similar case. The amounts of nitrogen and carbon contained in 100 parts of proteid and urea are—

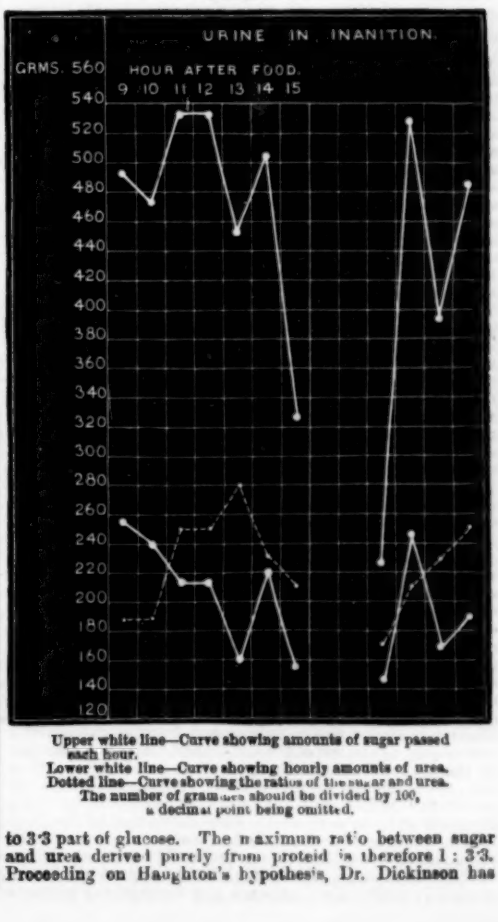
	Nitrogen.	Carbon.
Urea	46·6	 20
Proteid	16·1	 53

And amounts of proteid and urea containing equal weights of nitrogen will contain of carbon—

	Nitrogen.	Carbon.
Urea	46·6	 20
Proteid	46·6	... ... 153·7

Hence there are 153·7 − 20 = 133·7 parts of carbon available for sugar formation, and if entirely converted would give rise to 334 parts of glucose—that is, 100 parts of urea correspond to 334 parts of glucose; or 1 part of urea corresponds

DIAGRAM 1.



Upper white line—Curve showing amounts of sugar passed each hour.
Lower white line—Curve showing hourly amounts of urea.
Dotted line—Curve showing the ratios of the sugar and urea.
The number of grammes should be divided by 100, a decimal point being omitted.

to 3·3 part of glucose. The maximum ratio between sugar and urea derived purely from proteid is therefore 1 : 3·3. Proceeding on Haughton's hypothesis, Dr. Dickinson has

shown that some more or less constant ratio exists between the sugar and urea. Dr. Sidney Ringer examined the urine of two cases of diabetes when fasting and after a meal; the estimations were made hourly, and the results of some of his analyses are represented in the curves on Diagram 1. He finds that by taking the mean of several successive hours the relation of urea to sugar is nearly constant, being as 1 : 2·2, and this holds good for his case in inanition periods and after a non-amylaceous meal.

(To be concluded.)

THREE CASES OF TREPHINING THE SKULL.

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RESIDENT SURGICAL OFFICER TO THE MANCHESTER ROYAL INFIRMARY.

CASE I.—Jas. K——, aged twenty-three, a healthy, strong man, was admitted to the Manchester Royal Infirmary on May 18th, 1883. A quarter of an hour before admission he had been struck by a falling rope-block upon the forehead; he was knocked down but was not unconscious. On examination it was found there was a lacerated wound over the right side of the frontal bone, about one inch from the middle line and the same distance from the coronal suture. The edges of the wound were jagged and inverted, and at the bottom of it was felt a deeply depressed fracture occupying a space about the size of a sixpence. There were two other slight contused wounds which did not reach the bone. There were no symptoms of compression of any sort, and the man felt well and was loth to stay in hospital. Three hours after admission he was put under chloroform and a crucial incision made over the depression. Hair, blood-clot, and bone were found deeply driven in below the level of the surrounding skull. There was no possibility of elevating the fragments without trephining, so part of a circle three-quarters of an inch in diameter was removed below the depression and several fragments of bone taken away; these were compressing the brain, and some were lodged beneath the surrounding skull. While the trephine was being used a broad, flat, thin raspatory was passed between the dura mater and skull, to protect the former from the trephine. The dura mater was not wounded, and there was no bleeding of importance. The brain pulsations were not very well marked, but on removing the depressed fragments the dura mater at once rose to its natural level. The operation was performed antiseptically (Lister), wire sutures and rubber drainage-tube being employed. The subsequent history was very simple: the temperature never rose above 99°, he had no pain or bad symptoms of any kind except a little jaundice on the 20th. On June 1st the wound had healed except at one point, and antiseptics were discontinued. On the 16th he was sent to the convalescent hospital. He was seen again in October and November, and was perfectly well and able to work as an engineer, but his friends had noticed that his temper was quicker than before the accident.

CASE 2.—Wm. B——, aged five years, a healthy child, was knocked down in the street by an omnibus, and apparently kicked in the head by one of the horses, but the exact mode of infliction of the injury could not be found out. He was admitted on May 17th, shortly after the accident. It was then found that there was a compound fracture of the right parietal bone just above the temporal suture and nearly at its centre. The fracture was deeply depressed and of the nature of a punctured fracture, the depressed area being about three-quarters of an inch square. There was also a linear undepressed fracture exposed in a wound just on the left of the mid-frontal line. The direction of this second fracture was upwards and outwards. There were no symptoms of compression. An operation exactly similar to that in Case 1 was performed, the condition being curiously alike in each case: deep depression of the fragments, which were so firmly locked and driven beneath the surrounding bone that it was impossible to elevate them without trephining. Here, too, hair and clots of blood were matted in among the fragments and beneath the adjacent bone. The dura mater was uninjured. The child vomited during the operation. Antiseptics (Lister) were employed throughout, and an ice-bag applied outside the dressings. On the morning after the operation the temperature rose to 102°, and remained so until evening, but there were no other bad symptoms. On the 19th the morning temperature was 100·6°, and the evening temperature 100·8°; on the 20th it was 99·4°; and the child had slight pain in the head. Pulse 120. He was dressed twice on the 18th, and again on the 19th and 20th, on which day a small patch of bare bone was found exposed. After this all went on well, the ice-bag was left off on the 28th, and on June 16th he was sent to a convalescent hospital. On Oct. 1st, 1883, he was seen. The wound was quite sound, pulsations perceptible plainly through the scar. His father noticed that he had occasional twitchings of the left leg during sleep, and that "if spoken sharply to he is nervous for the rest of the day." He is fat and well, and shows no signs of the injury except those mentioned.

CASE 3.—O. M——, aged ten, a strong and healthy boy, was admitted to the infirmary on May 17th, 1883. He had fallen twenty feet into a pit, and struck his head against some stones at the bottom. He was taken up in a semi-conscious state, and removed to a neighbouring house, where he soon recovered consciousness. He vomited while he was being removed to the infirmary, which he reached about four hours after the accident. On admission he was found to have a lacerated wound of the scalp over the right side of the frontal bone about two inches from the middle line, and two inches in front of the coronal suture. On examination of the wound a sharply depressed fracture of the skull was found occupying an area the size of a shilling; there was another small scalp wound a little further back on the opposite side of the head. The boy had no symptoms of brain injury, and only complained of soreness in the wound. Three hours and a half after admission he was anæsthetised (chloroform), and the fracture exposed by three radiating incisions through the scalp. The hair and clot were found to have been forced in between the fragments, which were most depressed about the centre of the fracture, while at the circumference the depressed bone was tilted under the unbroken skull in such a way as to prevent the elevation of the fragments without trephining. A little more than half a circle of bone was removed from the sound skull immediately behind the fracture by a small trephine three-quarters of an inch in diameter. The fragments were now easily elevated, and it was found that near the centre of the depression the dura mater had been torn, and the brain wounded; here also dirt had been ground in between the fragments. The brain rose to its proper level when the depressed bone was removed, for there was no clot beneath the skull. There was rather free arterial bleeding from a meningeal vessel in the torn dura mater. As it was found difficult to seize the bleeding point, small bulldog forceps were so applied as to clip the bleeding vessel against the bone. The wound was partly closed with wire sutures around the forceps, and a rubber drainage-tube inserted. The operation was performed antiseptically (Lister). The patient was sick during the operation. On the following day the dressing was changed, and the clip forceps removed; he had had a good night and felt quite well. Temperature 99·6°. On the evening of May 20th (third day) the temperature rose to 101·6°, and on the morning of the 21st to 102·2°, but the boy said he felt perfectly well. Evening temperature 103·4°. The patient was slightly delirious.—22nd: Evening temperature 102·4°. Some headache. The wound was dressed, and over the rent in the dura mater a little projection like a blood-clot was noticed.—23rd: Temperature 100°. A slight trace of bile in the urine. The blood-clot mentioned above was found to be a hernia cerebri.—30th: The temperature had gradually fallen to normal and the hernia cerebri had attained the size of a cherry; there were no brain symptoms.—June 5th: The antiseptics were discontinued; the hernia had increased to the size of a small walnut; pressure was applied by means of a plate of sheet lead. No other bad symptoms had appeared.—June 9th: The hernia cerebri was pressed down to the general level of the granulations.—28th: Patient still doing well; no symptoms had appeared. He was sent to the convalescent hospital with a granulating wound one inch and a half by three-quarters of an inch.—Sept. 30th: The granulations had been kept down by pressure; a small piece of necrosed bone was removed.—Oct. 26th: The wound was healed, and the boy was quite well, but was reported to be

more irritable than he used to be, and to be easily thrown into a passion when teased.

Remarks.—Several cases have lately been published and observations made to show that the old classical rule—in compound depressed fractures of the skull with or without symptoms elevate—is not one to be universally followed, and that such cases if treated antiseptically may be safely left to nature. It is so important that this question should not be left unsettled that we think these cases are worth recording, more particularly because they illustrate several other points of interest. First, the three fractures were very much, even curiously, alike, all partaking of the nature of punctured fractures, though not actually so. In all the depressed bone was driven beneath the edge of the surrounding bone, and so locked that elevation without trephining was impossible. Next, in all a quantity of hair and blood-clot was driven in and entangled among the fragments in such a manner that it was only found on removing the loose pieces. Again, in none of the cases were there any marked symptoms. One had slight concussion, but otherwise the entire absence of any signs of severe injury was most marked. Two of the three cases were children. In one the dura mater was wounded and the brain lacerated, yet, except for the slight transitory unconsciousness, he showed no signs of injury. As regards the mode of operating, the use of the raspatory to protect the dura mater is an important matter; it simplifies the operation, and minimises risk. The trephine can be worked freely without any fear of injury to the dura mater, and the flat thin blade of the raspatory can often be insinuated beneath the bone, even where it is impossible to elevate without trephining.

The questions arising from these cases are: 1. Would these patients have recovered without any operation? 2. If so, was the operation merely unnecessary, or was it hurtful? and is it wise to leave such cases to nature, aided only by careful dressing &c.? It is no doubt perfectly possible that recovery might have taken place in all three instances. There appears to be a very wide margin of possibility of survival after head injuries, especially, of course, in the young. Such possibility is, however, in our opinion, not sufficient to contraindicate operation. As to the operation being hurtful, no doubt there is a deficiency in the skull greater than would have existed if there had been no trephining, and there is the risk of wounding the dura mater during the operation. Apart from these considerations the operation seems to have no injurious tendencies, and where the dura mater can be protected in the way described the risk of damage to it is very small; it is simply a question of care. The reasons why we think the operation in these instances was not only not hurtful but necessary, and why we should urge operation in all such cases rather than reliance upon antiseptics only, are, first, it would have been impossible to clean the wounds of hair, clot, &c., without elevation and removal of the fragments; secondly, without operation it would not have been discovered that a point of bone had penetrated the dura mater and torn the brain; thirdly, prolonged suppuration must have occurred before the dirt and fragments of bone could be got rid of; and, finally, the presence of the depressed bone would not only tend to produce meningitis at the time, but would very probably lead to subsequent mischief, epilepsy, and so forth. The balance of evidence appears clearly to be in favour of elevating in all such cases, and we cannot but regard the policy of leaving them alone as unsafe and unwise, more especially since it is impossible to say what the exact nature and extent of the injury is until such exploration is made. Two other points are worthy of notice. First, two of the three patients had jaundice a few days after the injury; it is well to be prepared for this condition, which probably is simply due to sudden confinement to bed of a previously healthy and active person. Secondly, the perfect success which attended the treatment of a condition sometimes so much dreaded—viz., hernia cerebri, by the simple pressure of a piece of sheet lead.

We are indebted to Mr. Hardie, during whose absence the cases were admitted, for permission to retain charge of them throughout their course.

A DISTRESSING case of suicide took place at Chertsey a few days since. A pupil teacher in an infant school, suffering under nervous depression from, it is alleged, overwork in her studies, threw herself into the Thames and was drowned.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem estalia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum tam proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

CASES OF EPITHELIOMA ORIGINATING IN CHRONIC ULCERS OR IN CICATRIX.

(Under the care of Mr. BRYANT.)

CASE 1.—*Chronic Ulcer of Leg, with exposure of Tibia; Epithelioma in Ulcer; Amputation at Knee-joint; Cured.*—George L——, aged thirty, a schoolmaster, was admitted on Jan. 17th, 1882, into Job ward. He had never had gonorrhœa or syphilis; had always been healthy, and moderate in drinking. Fifteen years before admission a piece of timber fell across his legs, both of which were fractured. The left leg was broken only in one place and was cured in seven weeks, but the right never thoroughly recovered. After two years it was so far well that he could stand upon it, but there was a discharging sinus from which at times pieces of dead bone came away. During the last three years this sinus had grown bigger and more troublesome. The right foot and leg had not grown since the accident.

On admission the state was as follows: The right leg is shorter than the left, measuring 13 in. from the inner side of the head of the tibia to the tip of the inner malleolus, against 14½ in. On looking at the leg from the front the lower third of the tibia bows inwards, and the fibula, which seems to have grown since the accident, bows outwards. The right foot measures from the tip of the great toe to the end of the heel 8½ in., against 9½ in. on the left. The right ankle is anchylosed. Over the lower third of the front of the leg is an irregular scabby surface, with a red raised edge. In the centre of this the bone can be distinctly felt.—Jan. 19th: Leg to be dressed with a solution of boracic acid (ten grains to the ounce).

Feb. 14th.—A dirty yellow scab which had covered the wound for the last five or six days came off. Beneath it there was a creamy yellow pus-like discharge, which displayed under the microscope a number of epithelial cells. There were no enlarged glands.—27th: The patient has a sore-throat and cold. The raised edge of the wound looks more malignant every day.

On Feb. 28th, with the patient under an anæsthetic, Mr. Bryant performed Stephen Smith's amputation through the knee-joint, leaving the patella. Several arteries were twisted; but the main trunk, which seemed to have been divided just at its bifurcation, was secured with a catgut ligature. The wound was washed out with iodine water, and its edges were adjusted and stitched. Examination of leg: The large surface exposed during life was found to be composed chiefly of dried and corneated epithelium. On raising this epithelium the wound was dry on the surface, and moist and white in the deeper parts. The bone was exposed, and in one part it was already bare; it was rough, but the surface was not soft or carious. The epitheliomatous margin was to the inner side, and was placed chiefly over the soft parts beyond the edge of the bone. It was raised, and composed chiefly of white, fatty epithelial cells, with a superficial growing and rather translucent part. The bone here was a little more irregular than elsewhere; the depressions were rather rougher. Out of these cavities the same soft epithelial material was lifted, leaving the cavity clean. The floor of these cavities even was not soft. The ankle was anchylosed through cartilaginous surfaces being adherent, the ligaments also were stiff and allowed no movement at all. There was here no active disease. Bone much thickened; union in good line. Medullary canal large, ⅜ in. to ½ in. wide, and filled with marrow, rather firm; it existed above and below the site of the fracture for about 2 in. The bone was uniformly dense and close at the seat of old fracture. In the posterior part at this point was an oblique groove lined by fibrous granulating tissue and containing a very small porous

sequestrum. Muscles fatty; behind no muscle or tendon could be distinguished.

March 2nd: Wound dressed.—3rd: Wound dressed again.—4th: Bowels acted.—6th: Patient's appetite fair. Bowels only acted twice since operation. Tongue foul. Sleeps badly. Bowels acted in the afternoon.—10th: Wound dressed, going on capitally. Patient does not sleep well; morphia injections most nights.—15th: Stump going on well. The patient is taking cod-liver oil and iron.—24th: Stump discharged a little this morning, the discharge being of a thick red condition. The patient did not have such a good night.—30th: No discharge from stump.

April 22: Went out. The patient was able to bear a great deal of pressure on the stump.

CASE 2.—*Necrosis of Tibia; Epithelial Cancer of Leg; Grilli's Amputation at Thigh; Ligature of Veins; Secondary Hæmorrhage on fourteenth day; Cure.* (Reported by Mr. Tresidder.)—Thomas M——, aged twenty-four, a chimney-sweep, was admitted on Jan. 22nd, 1882, into the Job ward. He had an unimportant family history, and had not suffered from gonorrhœa or syphilis. In 1874 he was under Mr. Bryant's care for six months with necrosis of the lower end of the tibia. Two pieces of bone were removed, and when he left the hospital there was only a slight discharging wound; this had never healed, and the patient had constantly applied water dressings to it. A year ago he struck the same part of his leg against a ladder; it soon swelled and became painful, and the discharge increased. After attending at the out-patient room for some time, without benefit, he was admitted.

On admission the left leg was found to be enormously swollen. The whole of the surface of the lower part of the leg was in an ulcerated condition, with irregular edges and an unhealthy sloughing base. The swollen appearance of the limb was due to enlargement of the bone rather than of the soft tissue, the bone and periosteum being in an extensive state of inflammation.

Jan. 31st: Under an anæsthetic Stephen Smith's amputation was performed at the knee-joint. The flap was not long enough, so section had to be made through the condyles and through the patella. The arteries were secured with catgut ligatures. The wound was dressed with terebene and oil. There was slight oozing of the blood from the stump afterwards. In the evening the patient had an injection of morphia.

Feb. 2nd: Wound dressed for the first time; a good deal of serous oozing.—4th: Patient seems very comfortable, and the stump is quite easy. Dressed again.—14th: At 6 A.M. the stump started bleeding, and about a pint or more of blood escaped before hæmorrhage was arrested. Took one ounce of brandy.—15th: Stump is still oozing.—17th: Stump dressed; drainage-tube taken out, cleaned, and replaced, and all the stitches were removed, union having taken place; dressed with terebene. Bowels regular, appetite good; urine normal, no albumen.—20th: Dressed. Union seems complete.—21st: Dressed. A good deal of discharge comes away.

April 13th: Stump is quite healed, and patient went to Bognor.

CASE 3.—*Extensive Epithelioma of Right Neck and Cheek, occurring in a cicatrix after Lupus twenty-two years previously.* (Reported by Mr. Sandol.)—John L——, aged thirty, was admitted on April 12th, 1883, into Job ward. When eight years old the patient had measles. Soon after he noticed swellings on both sides of the neck. These broke and discharged for some time. Then they healed for about two years, but after a cold winter they broke out again. He had had these swellings breaking out in different parts of his neck on and off ever since. About a year ago a sore appeared which ran along the back of the right ear, and about six months ago another sore appeared which occupied a position midway between the lobule of the right ear and the angle of the mouth. In St. Bartholomew's Hospital these sores were poulticed, and a considerable offensive discharge took place.

On admission, the patient had a large fungating mass, which occupied the right cheek, and extended upwards to the eye and side of the nose, and downwards and involved the ramus of the jaw and fleshy parts beneath, and forwards and implicated the upper lip, and backwards about an inch in front of the sterno-mastoid. Within this area was a deep crater-like cavity which ulcerated. The jaw did not seem involved. There were some grape-like swellings, about six in number, situated below the lobe of the ear. The mass was deeply adherent in the parotid region. On the anterior surface of the left side of the neck was an irregular scar-like surface, which ran downwards on the skin covering the clavicle and part of the chest, and covered with whitish mill-et-seed-like elevations. The patient felt no pain, and had no difficulty during deglutition.—April 30th: Discharged. No treatment adopted.

ROYAL ALBERT EDWARD INFIRMARY.

A CASE OF BELLADONNA POISONING; RECOVERY AFTER TWENTY-THREE HOURS' UNCONSCIOUSNESS.

FOR the following notes we are indebted to Mr. J. H. Jackson, M.B. Edin., senior house-surgeon.

J. F——, aged thirty-nine, was admitted at 6.20 A.M. on Oct. 10th. At 5 A.M. the patient, who was suffering from neuralgia, had swallowed an ounce of linimentum belladonnæ by mistake, thinking that he was taking a dose of medicine. Before admission a powerful emetic had been successfully administered by a medical man, and this had been followed by thirty minims of tincture of opium.

On admission the patient was delirious, the pupils were widely dilated, and there was marked twitching of the fingers and hands. The surface of the body was cold, and felt remarkably dry; and there was marked absence of perspiration from the entire surface of the skin, and absence of sensation. Three ounces of caster-oil were administered, the surface of the body sponged with hot water, a hot tin applied to the feet, and the patient was well wrapped up and kept in a room heated from 80° to 90° F.; and one-third of a grain of morphia was injected subcutaneously. At 9 A.M. the contents of the bowel were evacuated, and had a remarkably green appearance. At 10 A.M. the patient, although quite unconscious, swallowed some hot arrowroot. At 10.30 A.M. the skin began to act, and after this the patient drank large quantities of warm milk, and also passed very large quantities of urine. From this time until the patient regained consciousness, the most striking symptom was that the patient was continually going through some peculiar movement, such as that of taking snuff or filling and lighting a pipe. At 6.30 A.M. mustard was applied to the back of the neck; but the patient did not regain consciousness until 4.30 A.M. next morning, when it returned quite suddenly, immediately after he had passed a motion. From this point the patient made a rapid recovery, although the pupils remained dilated and the gait was staggering for some days afterwards. He states that after swallowing the liniment he noticed a dry burning sensation in his throat, and that he remained perfectly conscious for twenty minutes. The temperature was slightly subnormal, except about twelve hours after taking the poison, when it rose to 100·4°, but sank again in about two hours.

REMOVAL OF A PENNY FROM THE ŒSOPHAGUS.

T. S——, aged ten, was admitted into the infirmary on Nov. 6th, at 2.30 P.M. A little time previously, while walking to school with a penny in his mouth, he had been struck at by another boy, and in the excitement of the moment the penny slipped down his throat. On examination the coin could be distinctly felt as a round, hard mass fixed in the œsophagus, with its surfaces anterior and posterior, its lower border being about half an inch above the upper margin of the the sternum. As the patient had already vomited violently without any result, it was resolved to administer chloroform to try to remove it. As soon as the patient was under chloroform a probang with an extracting clip was passed down the œsophagus, and after several ineffectual attempts, the coin was extracted by pressing it firmly on to the clip, when it was found to have passed below the point of fixture, and then making gradual traction. No bad symptoms followed.

THE TUNBRIDGE WELLS MEDICAL ASSOCIATION.—On the 4th inst. this Association brought an action against Dr. Pullen, who formerly was its medical officer, for the purpose of obtaining an injunction preventing him from practising within a radius of three miles of Trinity Church, Tunbridge Wells. Judgment was entered for the defendant on the ground that when the covenant was made the Association had practically no legal existence under the Friendly Societies Acts, it not having been registered.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Spinal Cord of Infantile Palsy.—Amyotrophic Lateral Sclerosis.—Malignant Disease of Mesentery.—Secondary Nodules in Peritoneum in a case of Ovarian Tumour.—Purpura Hæmorrhagica with Micro-organisms. — Perforating Ulcer.

AT the meeting of this Society, held on Tuesday last, Mr. J. Whitaker Hulke, F.R.S., President, in the chair, the proceedings were of varied interest—neurology, the pathology of new growths, and micro-organisms each finding ample representation.

Dr. ANGEL MONEY read notes and showed microscopic sections of the Spinal Cord from a recent and an old case of Infantile Palsy. The recent case was that of a female child aged two years, who died sixteen weeks after the onset of paralysis of both legs. The old case was that of a boy aged seven years, who died of diphtheria five years after the commencement of palsy of the right leg. The limbs in the recent case were much swollen, but did not pit on pressure; they also felt cold and damp. The right limb of the second case was greatly wasted and considerably shortened, but had no œdema. The microscopical appearances of the two cases presented some striking differences, but Dr. Money believed they were only different stages in the progress of the same pathological affection. In the centre of the lumbar enlargement of the recent case there was great vascular engorgement, great infiltration of the anterior cornua with leucocytes, and the true nerve cells could not be discriminated. It should be further observed that the disease was not sharply confined to the anterior cornua, but spread away more or less in all directions. The old case showed almost complete absence of the nerve cells on the right half of the lumbar enlargement, and the anterior horn was much wasted, being composed of a rather dense nucleated tissue, which stained deeply. The characters above given were such as belonged to the centre of the mischief. The pathology of the disease was next spoken of. The majority of cases were believed to be of vascular origin; by which was meant the belief that some damage, not of a permanent character, was done to the walls of the bloodvessels, and on Cohnheim's view all the phenomena of inflammation ensued on such mischief. Some cases might commence as a hæmatomyelia, but he rather thought that where hæmorrhage did occur this was but an accompaniment of the inflammation, for again Cohnheim had shown that where the vascular damage was great actual blood extravasation took place. It was also well known that Charcot and Bouchard had said that hæmorrhage into the grey matter of the spinal cord was always secondary to myelitis. But Dr. Money considered that the hæmorrhage and inflammation were but concomitant phenomena and the result of a previous common cause.—Mr. HULKE thought the cases and question raised of much interest.—Dr. SHARKEY could not agree that the grey matter was less well supplied with blood; where the functional activity was greatest there existed abundant capillary supply of blood. He had always believed that the circulation of the brain and spinal cord was the least likely to get deranged, for these are enclosed in a non-resistant medium which equalised pressure. In starvation these parts suffered the least.—Dr. WILKS said the view expressed went against his teachings. The most differentiated parts, such as the brain and spinal cord, were unusually well supplied with aliment. And tissues which were always in activity were the most liable to go wrong in disease. This principle was seen in progressive muscular atrophy, where the arms and legs, which were most actively in use, and were better supplied with blood, yet became diseased. The cases were clinically interesting. He had seen well-marked febrile symptoms in such cases; and also such symptoms as might lead one to diagnose rheumatic fever.—Mr. PARKER inquired of the manner in which the disease was produced. The spinal cord was protected from the sun by a dense casing. Many cases commenced in cold weather. He asked what set up the disease at particular spots when the damage was limited. In some a considerable area of spinal cord was affected. He agreed that the mischief occurred about the cells and was vascular. The highly specialised tissues were not likely to be restored.—Dr. CARRINGTON had made the anatomical injections for Dr. Moxon, and had found that the blood supply to the cord was by no means so very perfect as had been described by authors.—Dr. ANGEL MONEY, in reply, said that he agreed that parts which were most active had a good blood supply and were most liable to disease, but he considered that the blood pressure in the spinal cord was in a somewhat precarious state, as might be witnessed in the care which nature had taken to equalise the pressure by means of a fluid medium. That the nerve cells were the victims of the vascular disorder he still firmly maintained.

Dr. COXWELL read notes of a case of Amyotrophic Lateral Sclerosis, which occurred in a woman. Eighteen months before being seen the right thumb began to waste, then the little finger. This was followed by atrophy of the right arm, and next the left arm and legs; difficulty of swallowing ensued. She was an intelligent woman, aged forty-seven. There was not a typical main-en-griffe; the legs became rigid, the face expressionless, and the words were drawled out. The atrophied muscles reacted but feebly or not at all to the faradaic and galvanic currents; the anodal closure contraction was greater than the cathodal. The rigidity of the legs increased, and ankle clonus was obtained. At the autopsy the spinal cord was wasted, and the appearance of semi-translucency in the lateral columns indicated the presence of sclerosis. The crossed pyramidal tracts were stained much more than the posterior columns. The columns of Türck stained less deeply than the pyramidal tracts. The nerve tubules were separated by sclerosed tissue, and were mostly much atrophied. There was atrophy of the multipolar cells, some being quite withered, and many had disappeared. The usual groups were hardly represented, and the nuclei of cells were often absent. Where the pyramidal tracts broke up the sclerosis was more widely spread out. The posterior pair of corpora quadrigemina had no specially stained part. The hypoglossal nucleus was not natural. The nuclei about the aqueduct of Sylvius were perfectly healthy. Cases had been recorded by Charcot and Dreschfeld. The clinical record of this case agreed with the typical ones.—Dr. ORMEROD said the succession of symptoms described was very interesting. At first there was no appearance of lateral sclerosis during life; the wasting of muscle and absence of faradaic contractility proved this. Usually the lateral sclerosis appeared to be propagated to the cells in the anterior horn. This case did not seem quite to correspond. There might be a separate onset in the different systems of the spinal cord in some cases, and so we might have combined lesions.—Dr. BEEVOR had had a similar case, which occurred in a man; he had recorded this in *Brain* for 1881. Charcot had described two forms:—(1) Sclérose latérale amyotrophique; (2) Amyotrophie spinale deuteropathique.—Dr. COXWELL, in reply, thought it was difficult to decide whether the process began in the lateral columns or in the grey matter.

Dr. SAINSBURY related a case of Malignant Disease of the Mesentery. The patient was a soldier, aged fifty, who had suffered from pain in the chest and cough, with loss of strength, dyspnœa, and wasting. The detection of a tumour was subsequently made on the right side at the level of the umbilicus. The persistence and aggravation of the asthenia with only slight dyspeptic signs were noteworthy. Tenderness and tympanites, indicative of peritonitis, developed rather suddenly towards the end of the malady. The temperature was 103° during the early part of the illness; the fever subsided after ten days. Pyrexia was also present later on. At the autopsy turbid yellowish fluid was found in the hypogastric region of the peritoneum. The tumour seemed to consist of coils of intestines matted together by adhesions. There was a large central cavity containing yellow grumous fluid; this communicated with the intestinal canal. The growth had originated in, and appeared to be limited to, the mesentery. It was a spindle-celled sarcoma; the wall of the gut was involved very slightly at one part. Such cases were very uncommon. Carcinoma generally began in the lymphatic glands; and Bamberger had said that these were secondarily affected. Walshe described one case, and quoted another of primary mesenteric disease. Graves also mentioned cases having a central necrosis, which was said to be due to thrombosis of vessels. Also Mr Henry Arnott had described a similar case in the Pathological Transactions of primary disease in the mesentery. Mr. Callender had recorded an example of extensive peritoneal cancer. The absence of

disease elsewhere, with the excavation of gut, were noteworthy features; as also was the mobility of the tumour, which was different from growths in the retro-peritoneal tissue. The cachexia had been marked during the early stage. Dr. Church had written in the St. Bartholomew's Hospital Reports on the relation of temperature to tumour.—Mr. ALBAN DORAN wished to know if ascites was present or not. He had made a large number of necropsies of patients who had died with primary or secondary malignant disease of the peritoneum, and was struck with the very uncertain relations of that disease with ascites. He had seen the peritoneal cavity filled with fluid when no disease was present excepting primary sarcoma of the omentum, and when no main vessels were obstructed; and he had seen cases of sarcoma of the ovary infecting the omentum extensively, yet no ascites existed. Mr. Doran also wished to know whether pleuritic effusion was present. It was a frequent concomitant of malignant disease of the peritoneum, but, like ascites, was often absent in bad cases and present when the disease was not very extensive.—Dr. SAINSBURY replied in the negative to the two questions.

Dr. HOBSON showed specimens of Secondary Nodules in the Peritoneum of a case of Ovarian Tumour. The clinical history of the case of the woman, aged thirty-five, showed that a large ovarian cyst had existed for some years. At the autopsy the peritoneal surfaces were found to be extensively adherent, and a lobulated tumour felt above the pubes during life turned out to be the uterus drawn up from the pelvis by adhesions. Many smaller cysts existed around the large one. The structure of the small secondary tumours was next described. There was a fibrous stroma with cellular elements; also discrete glandular bodies of all shapes and sizes, composed of masses of cells arranged in solid clumps or cylinders, with the beginning of a cavity in their midst, leading to the formation of a cyst with distinct cellular lining. Many of the cells showed perinuclear vacuoles, and other vacuoles not perinuclear. A simple layer of cells lined these cysts, but the cells were heaped up in some places. The cells were of columnar type, but rounded cells also existed. The lining membrane had a sharp inner edge. Probably mucus was present in some cells. Mr. Knowsley Thornton had described these microcysts as having origin from liquefaction of the centre of cell masses. Similar structures to these peritoneal buds were met with on the interior of ovarian cysts. The bursting of a cyst with scattering of its contents might induce the formation of growths on the peritoneal surfaces. Four other cases had been recorded in the last nineteen volumes of the Pathological Transactions. The views of Dr. Wilson Fox were quoted, and the importance of recognising the two distinct germinal layers from which the ovary was developed was commented on.—Mr. ALBAN DORAN asked if the ovarian tumour was a multilocular cyst with glandular growths in its secondary cavities, or a cyst filled with papillomatous growths. When a cyst containing glandular substance was ruptured, the peritoneum often became affected with secondary deposits precisely resembling the solid contents of the ovarian growth. Even when the secondary ovarian cysts held no solid bodies but small thin-walled so-called "hydatids," these little bodies often became disseminated over the peritoneum. Although extensive infection of the peritoneum with glandular growths was a very deadly complication, Mr. Doran had seen cases where the infection was recent and consisted of numerous small solid bodies scattered over the peritoneal coats of the small intestine; yet after removal of the ovarian tumour the patient had lived for many years, so that the secondary growths must have withered. Papillary growths arose from Wolffian relics in the hilum of the ovary, and were often disseminated over the peritoneum, yet after ovariotomy their development was often permanently arrested. In a case of papillary growths filling the Fallopian tube, with implication of the peritoneum, read by Mr. Doran before the Society in 1879, the disease never recurred, and the patient was still in good health.

Mr. WATSON CHEYNE showed Micro-organisms from two cases of Purpura Hæmorrhagica. Dr. Russell's case was that of a girl, aged twelve years, who had a purpuric eruption with pain in the joints, epistaxis, and bleeding from the ear. The temperature was 104·6° on the morning of death. There were numerous ecchymoses in the skin, and hæmorrhage into the pelvis of the right kidney. Sections of the heart showed extensive hæmorrhage beneath the exocardium. The capillaries were plugged with small bacilli arranged in colonies, a few were isolated; the typical mode of grouping was evidently in colonies. The walls of the vessels were ruptured; there was no evidence of inflammation. The bacilli measured $\frac{1}{17000}$ in. in length and $\frac{1}{125000}$ in. in diameter. Spores or unstained roundish areas also existed in the rods. There was no peculiarity in the staining reactions. Methylene blue was the best dye. The distension of the wall of the capillaries seemed to show that the bacilli had been growing in the blood for some time. The probable cause of the hæmorrhage was the plugging of the vessels with bacilli. Micro-photographs were shown. Dr. Pye-Smith's case was a boy, aged fourteen, who had one brother who bled much at the nose. The patient bled from a boil at first; afterwards there was constant bleeding from the gums, nose, and also into the conjunctiva. The temperature was 98°. After prolonged use of local styptics the bleeding ceased. The anæmia produced was intense, and the patient died. There was hæmorrhage from an erosion of one small ulcer in the stomach. There were small subarachnoid hæmorrhages. The testes, lungs, brain, skin, serous and mucous membranes were all affected. The lungs, tonsil, and heart were examined. The pulmonary alveoli were full of blood, and the vessels contained colonies of micro-organisms, the capillaries and some larger vessels were completely blocked with swarms of streptococci which exhibited a typical chain formation. These micrococci were $\frac{1}{12000}$ in. in diameter. There were no free micrococci. No inflammation and no necrotic layer were seen around the plugged vessels. Sections of the tonsil showed several of the vessels plugged with streptococci. The importance of the observation of two cases of idiopathic purpura hæmorrhagica associated with the presence of micro-organisms was very great. These micro-organisms formed colonies, other kinds did not form vascular plugs (except the typhoid bacillus). The question whether there was an entrance of specific germs from without or whether organisms had penetrated into the blood from the alimentary tract was considered.—Dr. PYE-SMITH referred to the fact that no change had yet been found in the bloodvessels of cases of purpura, though such change might be expected to exist.—Dr. BERNARD O'CONNOR asked whether micro-organisms had been found in the blood.—Dr. ANGEL MONEY had not found micro-organisms in the blood in two cases he had examined.—Dr. STEPHEN MACKENZIE said we ought not to come to the hasty conclusion that organisms were present in all cases of purpura; and Mr. Cheyne had exercised scientific caution in limiting his inferences to his actual observations. There was no probability of any specific organism being engendered in cases of "iodic" purpura.—Mr. BARWELL made some remarks, and Mr. WATSON CHEYNE briefly replied.

Mr. DENT showed a living specimen of Deformity of Feet resulting from perforating ulcer.

Mr. HULKE showed drawings of two cases of Cancer of the Breast with secondary nodules around primary focus.

Mr. SHATTOCK showed a specimen of Double Vena Cava, the left being the larger.

EPIDEMIOLOGICAL SOCIETY.

Discussion on Sir William Hunter's Paper.

THE meeting held on Wednesday, the 13th inst., to discuss Sir William Hunter's paper was not completely successful, for only seven out of twenty members who wished to speak joined in the discussion. The President, Dr. Norman Chevers, was in the chair, and at the conclusion of the debate paid a graceful tribute to Sir William Hunter on the able work which he had done, and the acknowledgment of the same which had been made to him by Her Majesty the Queen.

The PRESIDENT read a letter from Sir James Paget, which had reference to the part the Epidemiological Society might take in connexion with the forthcoming Health Exhibition. The matter was to be referred to the Council.—Sir JAMES FAYRER said that the Medical Society had resolved to act on Sir James Paget's suggestion.

Sir WILLIAM SMART then opened the discussion on Cholera by taking up the general question as to whether the last Egyptian epidemic was imported, developed *de novo*, or was only a recrudescence of an endemic disease. The facts and theories of the last and many previous epidemics, not only in Egypt but elsewhere, were briefly narrated. He was strongly of opinion that Dr. Hunter's conclusions were

in the main correct.—Inspector-General LAWSON said that the grand point to determine was whether the disease could be spread by human intercourse alone or by factors altogether independent of such agency. This problem had exercised the profession for fifty years. He thought many doctors had acted on partial information, and had not argued from the facts. Information ought to be submitted to a rigid analysis before it was admitted as evidence. He read a paper ten years ago in that very room urging these considerations. In 1865 cholera broke out at Alexandria, and cases occurred at Marseilles shortly after. Was this importation or not? We could not establish either of these issues without excluding one. A patient might have simple diarrhœa in one place, and on going to another locality cholera might break out and then it would be said that the simple diarrhœa was cholera. Anything more inconsistent he could hardly imagine. Simple diarrhœa was elevated to the position of cholera simply to support certain theories. The nature of sporadic cases was next referred to. It had been alleged that they arose *de novo;* but they must have an adequate cause. The Registrar-General's return of mortality from cholera showed a constantly varying quantity, but when the numbers augmented there was also a marked increase in the number of malignant or severe cases. It must also be observed that the number of these sporadic cases fluctuated in accordance with an epidemic of cholera. When in 1859 the cholera spread along the western coast of Europe to Sweden, there was an increase in the number of cases of summer cholera in England, and three isolated groups of cases of genuine sporadic cholera occurred—one at Southampton Water, another at a village in Yorkshire, and a third in the prison at Manchester, where 196 out of 466 prisoners were affected on December 28th. Similar groups happened in Scotland, Denmark, and Sweden. It was as though there were drops all round the margin of a storm while there was a heavy rain going on in the centre. These outlying cases must depend on the existence of similar causes to the epidemic ones.—Dr. THRUPP said he was honestly convinced of the value of the evidence which Surgeon-General Hunter had brought forward. He asked what was the clinical and pathological connexion between cholerine, cholera nostras, choleriform, and cholera itself? Was the disease one and the same in India and Egypt? This must be proved or rejected. He did not believe in the "germ" of cholera, and thought it as great a myth as the sea serpent. Were the so-called types only different expressions of a disease clinically and pathologically the same? Did Asiatic, Russian, Indian, English, and other varieties depend for their varied effects upon local, climatic, and meteorological conditions? For the conversion of the endemic into the epidemic phase local, climatic, and meteorological conditions must act in concert.—Dr. NORMAN CHEVERS understood that according to some, cholera always existed, though in a lighter form, in India and Egypt. From a life-long Indian experience, he could not support that view.—Dr. LONGHURST said he believed that Dr. Hunter went to Egypt to find out whether the disease was cholera or not. That it was cholera had been conclusively shown. The question then was, where did it come from? Apparently it was not imported, and he had no objection to the view that cholera was endemic; but if so, where did the poison reside? He believed the poison was a practical entity, and could not agree that cholera was non-specific and non-contagious. Cordons were of no use. The emotion called fear could hardly produce the disease.—Brigade Surgeon SCRIVEN thought that cases of cholera did arise spontaneously in the Delta of the Ganges. Whether this was due to a re-creation of poison he could not say. It was commonly held that cholera had one home, and that it did spread from place to place. The question of importation by the pilgrims of Mecca was still possible. We must look not only to the great annual pilgrimage, but it was known that pilgrims were constantly on the march at all seasons. The position that cholera always existed in Egypt was not fully proved. The cases were vaguely stated, and the clinical record was very imperfect. Dr. Hunter had given no evidence of the mode of its spread. It was our duty to find out whether cholera was still prevalent in Egypt. The importance of suppression of urine and other marked symptoms in the diagnosis was dwelt upon. So-called sporadic cases of cholera met with in the Punjaub turned out in at least three instances not to be that disease. These three cases had been under his own personal knowledge.—Dr. CULLIMORE said the great problem was whether the disease was of foreign or native origin. It was generally acknowledged that it spread from India to Europe. Cholera having arisen in India, there were many ways by which it could be transmitted. No doubt meteorological conditions played an important part. The Hon. Mr. Cornish had noticed how the south-west monsoons led to the disappearance of cholera in one part and its appearance in another.—Sir WILLIAM HUNTER, in reply, expressed his heartfelt thanks for the kind way in which the announcement of his honours and distinctions by Sir Joseph Fayrer had been received by the Society. He accepted the distinction as an honour done to a member of the medical profession, and quoted, "Je suis avant tout, je suis un médecin." Dr. Thrupp's question was the real key to the whole position. If an individual had purging and vomiting of a serous character, with aphonia, prostration, anuria, and cramps, that would signify cholera to Dr. Hunter. He firmly believed that cholera nostras, cholerine, choleriform, cholera morbus, and cholera Asiatica, were essentially and pathologically one and the same disease. He said it had been difficult to get any information, and this must be his excuse for the imperfection of the clinical record. He thought that typhus cholera was a secondary complication of the primary disorder; but he was not responsible for the use of that term. He challenged any member to show that there was any evidence whatever of the importation of the disease last year. In fact, political and mercantile considerations had so embarrassed the question that the difficulty of arriving at any accurate information, not to say the truth, was well-nigh hopeless. He then read the following passage, which had been sent to him in a letter by Dr. George Buchanan:—"Bacon, in his 'Natural History,' said that it is recorded by competent observers that if you take earth from the side of the Nile and protect it from wet or waste, and weigh it every day, you will find that it remains always of the same weight until June 17th, when it begins to increase in weight during the whole time that the river is rising. This can be due to nothing but the air; and this is the more extraordinary, he goes on to say, because it has been observed that just at that date it is the habit of grievous plagues to make their appearance at Cairo." So there was nothing new under the sun.

WOOLWICH MILITARY MEDICAL SOCIETY.

Antiseptic Surgery in Field Service.

A MEETING of this Society took place on Friday, Feb. 15th, Sir James Hanbury, K.C.B., President, in the chair. The President made some prefatory remarks on the value of the application to field service of antiseptic surgery. Surgeon-Major Godwin had read a paper on the subject at the last meeting of the Society, and it was proposed to set apart a further evening for the discussion. The present gathering was the result of that decision. The Society was honoured by the presence of the Director-General of the Army Medical Department, who was naturally greatly interested in the matters dealing with the welfare of the soldier in the field. Sir James next spoke of the unfavourable circumstances in which the soldier in the field was placed from a point of view of antiseptic treatment. His clothes and his skin were saturated with perspiration and dirt; the hygienic surroundings were as bad as could well be. The soldier ought to have the highest and greatest aid that science could give from the fighting line to the field hospitals. The proper solution of this problem was of the greatest importance for the British Army, so frequently engaged as it was in wars outside Europe. We must bear in mind that we could not rely on having our field hospitals as we could wish to have them, and much more work fell upon the first line of assistance. He ventured to think that the first line of assistance should be the sheet anchor of surgical aid, and he thought that the bearer companies were destined to form a very important part in war. These companies should be formed of the flower of the corps. But all the necessary appliances should be pressed into the smallest possible compass, and Listerism should be carried out, though in a modified form. He concluded by reading a passage from Sir Wm. Mac Cormac's book on the importance of having first-class men in the first line of assistance.

Surgeon-Major GODWIN then read a *résumé* of his paper, in which he contended that inflammation was not necessary

for the healing of wounds; that when inflammation occurred it was due to the setting up of a putrefactive fermentation of the tissues of the wound, this putrefaction being associated with the presence of micro-organisms. The agents of fermentation might be introduced from without, either through the dust, water, or air; the first two could be excluded, but air could not be, though its deleterious action could be evaded by the use of a germicide vapour. The materials and method of application of Listerism were outlined. The adoption of Listerism saved the patient from hectic fever and pyæmia, septicæmia, hospital gangrene, erysipelas, and tended to diminish the risks of secondary hæmorrhage, which was not due to the fault of the ligature, but, as Symonds and Goodhart had shown, to disease of the arterial walls, brought about by extension of suppuration along the track of the vessel. The detailed experience of Rahere, Bergmann, Nussbaum, and Billroth was given, showing how even modified antiseptic treatment had been successful on the field of battle. The great principle for the first antiseptic dressing was immediately to occlude the wound and not to have it tampered with unless absolutely necessary.

Dr. STEVENSON next gave a demonstration of some antiseptic dressings which he had personally prepared. Asepticism was impossible in the first line of aid, but we should attempt to be as antiseptic as possible. He fully agreed that the wound should be touched as little as possible before applying the first dressing. Antiseptics were either fixed or volatile. He proposed to make use of both. Where the wound had to be examined he would recommend the use of a cream, with which the surgeon should anoint his hands. This cream could be carried in "scent fountains" of various sizes. He had made creams containing eucalyptus oil and carbolic acid. Eucalyptus was valuable from its volatility and non blood-poisoning property. Carbolic acid was volatile, and in addition anæsthetic, and also astringent. Some absorbent pads saturated with fixed antiseptics were handed round. As there was certain to be dirtiness all round the wound, it would be important to have some antiseptic which could render this innocuous. To attain this end a coating of wax, containing some antiseptic, was made on one face of the first dressing of absorbent material, the wax melted at the blood temperature, and so the skin was bathed with an antiseptic lotion. Spongio-piline and quilted pads were exhibited, each impregnated with salicylic acid. Although so much antiseptic had been taken up, the spongio-piline was still absorbent in the highest degree. All these dressings were made into a certain size, which he called the "unit" of dressing. Such packages of dressings could easily be carried by the surgeon's orderly.

Sir JOSEPH LISTER said he had much pleasure in accepting the invitation to take part in the discussion. He thought the applications of antiseptic surgery to military purposes were now in a more hopeful position than at any other period. The means at our disposal had increased. The carrying out of the antiseptic principle was of essential moment. It was no use having ever so good an antiseptic surgeon in the rear if his predecessors had defiled the wound, and the converse. In civil practice the appliances might be as bulky and as expensive as need be, but in military service they must be cheap and of small bulk. An anecdote of Rahere was next narrated. This German surgeon visited Lister's wards at Edinburgh, having previously left London thinking very lightly of antiseptic surgery. After having been round Lister's wards, he exclaimed on leaving the hospital, "Ich staune.' Rahere, thoroughly impressed with the truth of the principles and familiar with all the details, was soon after appointed first surgeon in the Russo-Turkish war. In harmony with the old saying, "where there's a will there's a way," Rahere had transported a machine for the preparation of carbolic gauze, and had taken it with him as an army might do a cask of beef, so that the gauze was made and prepared daily for use. All his operations also were conducted under the use of the spray. He obtained admirable results. Rahere had divided wounds, like every surgeon alive to antiseptic matters, into two classes—the "befingerte" and the "unbefingerte." Of fourteen cases of wound of the knee-joint, seven were of the former and seven of the latter class; in all an attempt was made to save the limb. Of the former series one only had to have amputation performed, and of the latter only one had fever. All the others did well. Rahere, writing to Sir Jeseph, said, "Sind diese nicht herrliche resultate." Sir Joseph then went on to speak of the simplifications which might be carried out in military surgery. He had long held that of all the parts the spray was the least important. It would not break his heart if he were told that he was never to use the spray again. But that fact was not an argument against the use of antiseptic surgery by military surgeons. If the wound be washed after the operation with antiseptic solution, splendid results could be obtained without the spray. One point of simplification would be the employment of a lotion of corrosive sublimate, which had wonderful antiseptic properties, was exceedingly cheap (2s. per pound), and a small quantity was sufficient as an antiseptic (1 to 1000). The material called "wood-wool" was a soft and elastic material, made by tearing up pine wood, which was exceedingly cheap but very bulky, though when impregnated with corrosive sublimate it made a very efficient antiseptic dressing. He went on to say that he had lately been engaged in some experiments, and had lighted on what he believed was a new fact in chemistry—viz., that corrosive sublimate was wonderfully soluble in glycerine; it was soluble in one and a half times its weight of glycerine in the cold. This circumstance was, he believed, the key to the application of corrosive sublimate in a more compact form. Besides "wood-wool" we had rags, which would be highly absorbent. If we dissolved corrosive sublimate in an equal part of glycerine in 200 parts of water, we should have a solution of the required strength. This solution could be used in place of carbolic acid where it was necessary to interfere with the wound in the first line of aid. The materials for its manufacture were extremely portable. The solution would render a sponge aseptic better than carbolic acid, for corrosive sublimate was not volatile. Catgut ligature need not be kept in carbolic oil. For the first dressing Sir Joseph thought iodoform, though by no means the most powerful antiseptic, would be the best. Iodoform did not seem to protect against erysipelas, like carbolic; it was but little soluble in water or the discharges from the wound, and had no irritating properties. Recently, Lesser of Leipzig, in the *Centralblatt für Chirurgie*, had recommended an antiseptic powder carried by the soldier in an empty cartridge; this was composed of two parts of boracic acid and one of iodoform, but Sir Joseph thought pure iodoform would be more effective. Four yards of bandage of open cotton texture impregnated with spermaceti and a layer of absorbent cotton-wool with a three-cornered handkerchief might be carried by the soldier. A small dredging box like a pepper castor might be used instead of the cartridge box for carrying the antiseptic powder. A dressing made of these materials might be left on twenty-four or forty-eight hours, or even until healing was complete.

Sir WM. MAC CORMAC spoke of the lecture which he had delivered before 800 students in New York on the subject of gunshot wounds. He then said that iodoform was by far the best, and he was glad to hear that Lesser and Sir Joseph thought so well of it. It was non-irritating, and non-poisonous; the exact manner of applying it might differ with different surgeons. The future of every man wounded in war depended on how he was first dealt with. Sealing the wound was attended with excellent results; it was, in fact, the method of healing under a scab. A gunshot wound lent itself to this kind of treatment. The internal damage was very great; the wound was chiefly subcutaneous. Secondary bleeding, once so frequent, would become rare, and other wound diseases would tend to disappear if proper antiseptics were used. It was important to do the greatest possible good to the greatest possible number on the field of battle, so there was no time to use all the antiseptic precautions. The great point was to make the wounds safe from harm and protected until they reached the more fully equipped field and base hospitals in the rear.

Professor LONGMORE spoke of the great importance of having some cheap, portable antiseptic, protected from dirt and wet, for the first dressing, which was not, for the most part, applied by surgeons. He gave an account of the trouble which had been experienced in the Egyptian, Ashantee, and other campaigns in keeping this first dressing fit for use. The soldiers themselves carried it somewhere, but it frequently could not be found, or was in a very dirty condition. His experience with wood-wool had not been altogether favourable as a disinfectant.

Deputy Surgeon-General MARSTON said there were two particular directions in which the Director-General had been steering the ship in this antiseptic sea. The answer to these directions had been anticipated by Sir Joseph Lister. Dr. Marston mentioned the results obtained

in Dresden, and the great success following the treatment of wounds with corrosive sublimate. It was in the direction of applying this powerful antiseptic agent to military surgery and of utilising iodoform by miniature dredgers that attempts were now being made in the Army Medical Service. At the battle of Tel-el-Kebir the advanced field hospitals had solutions of every kind in the tents; and he bore personal witness to the hygienic state of the hospitals.

Sir JAMES HANBURY said he would not interfere with the able and exhaustive discussion which had taken place, for no one without a stroke of genius could meddle with it without making a muddle of it. As he was not afflicted with that infirmity, he should confine his remarks to thanking Sir Joseph Lister and Sir William Mac Cormac, and the other speakers, who had drawn attention to so many important considerations. He then said that he felt a diffidence in saying much in the presence of his commanding officer.

Director-General CRAWFORD, who then rose, said how indebted the military service was for the admirable lessons in field surgery which had been given by Sir Joseph Lister and Sir William Mac Cormac. He then alluded to the difficulty of managing the first dressing as regards its carriage by the soldier. He hoped, however, that antiseptic surgery would be properly carried out in another direction than that indicated. By this was meant the establishment of magazines of appliances to be in the advance line with every surgeon, so that a wound could be dressed in such a manner as to render it unnecessary to disturb it again. The less that was done to a wounded soldier the better. A good staff of military surgeons, and carriage for their material and appliances, were what he hoped to see forthcoming.

Votes of thanks, and a brief reply from Sir JOSEPH LISTER, in which he said he was glad to see that antiseptic surgery had taken such root in the Army, brought the meeting to a close.

LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Feb. 1st, Dr. Bell, Vice-President, in the chair.

Dr. MYERTLE gave details of an attack of "rheumatism" in certain muscles, from which he had himself recently suffered. After drinking two glasses of a particular claret which had on one or two previous occasions disagreed with him, he had a slight jaundice with symptoms of gastro-duodenal irritation. The jaundice having disappeared, peculiar and painful sensations were experienced in the calf-muscles of both legs during several days. These suddenly disappeared also, but were succeeded in a few hours by excessive pain in some of the intercostal muscles, so as to compel him to keep at perfect rest. No treatment except rest did any good. Formerly in such cases he used to bleed, and this he would do in his own case if he were attacked similarly again.

Dr. FARQUHAR read a paper on Sea Change, the Effects of Voyaging, with cases. He remarked on the paucity of information on this subject, Dr. Faber being the only observer who had gone to work systematically. No one should send out a pulmonary case without first consulting his contributions to the *Practitioner*. Dr. Farquhar's observations on a voyage last winter up the Mediterranean led him to the belief that many unsuitable cases are sent a-voyaging by medical men, and in the event of such a rigorous winter as that of last year, even in Italy and Greece, the disappointment to invalids in search of health must be great. He then gave details of the various cases that came under his care and observation. The most pronounced benefit was obtained by most of the phthisical cases, but some left the steamer before the tonic and stimulating action of the sea air had made itself felt, unnerved by the hardships endured in a storm experienced on leaving the Mersey. Voyagers suffering from the effects of overwork and mental strain did well; but "specific" cases showed the most marvellous results, complete recovery being the rule. Dyspeptics did not do well, nor subjects of skin disease of a nervous origin. To sum up, his experience in this voyage led him to believe that no diseased condition where the nervous, irritable element was present had much chance of benefit, the sea-air stimulus was in the end too powerful through its constancy. Such cases should land after the first beneficial stimulation, which generally occurred within the first three or four weeks of the voyage.—Dr. T. CLIFFORD ALLBUTT alluded to the rash way in which invalids are sent for long sea voyages or to health resorts, forgetful of the many conditions which should govern such advice. Unfitness in patients and unfitness in places led to much disappointment. Speaking generally, those who do well at sea are overworked persons not of nervous temperament, anæmics, syphilitics, and selected cases of phthisis and Bright's disease. Those who do ill are neurotics, chronic dyspeptics, and most subjects of organic disease. For all, the risks of bad weather, sea-sickness, and ill-cooked food are too heavy to be left out of account.

Mr. J. W. TEALE described three cases varying greatly in their symptoms, but in all of which an unsuspected stricture was found and cured, and the symptoms complained of disappeared. In the first case, a middle-aged gentleman who had suffered for years from chronic dyspepsia, and had lost 2st. in weight, a stricture was discovered, and, after long and careful treatment, cured. An operation for fistula was also required, and he quite regained his health and weight. The second case, a young naval officer, suffered an attack of excruciating pain in the kidney, which entirely disappeared when a series of tight strictures in the urethra were discovered and removed. The third case, a gentleman suffering from tenderness of the prostate and irritability of the bladder, was quite cured when a stricture of the urethra was discovered by accident and relieved.—Mr. T. P. TEALE spoke of his very favourable experience of the use of Lister's bulbed and graduated sounds, which he had used almost exclusively in his treatment of stricture for the last twelve years. He also expressed his impression that with such sounds in most cases it is a safe, and possibly a safer, method to dilate up to No. 10 or No. 12 at one sitting, and that the risk of producing rigors was not increased thereby.—Mr. MAYO ROBSON corroborated Mr. T. P. Teale's remarks, and said that in the out-patient department of the Leeds Infirmary he and his colleague had found the method of rapid dilatation by means of Lister's sounds to be both safe and efficient. The safety was possibly due to the complete dilatation preventing the retention of any urine or discharge behind the stricture.

Mr. SIMEON SNELL made a few obvervations on writing and reading in schools. After referring to the influence school life was held to have on the causation of myopia, he alluded to the unsatisfactory nature of the old slate in general use, and exhibited Kohn's white composition slates, which were thought to possess manifest advantages over the older ones. Allusion was next made to the printing of school books, size of type, &c., and reference was made to the valuable articles of Javal on the "Physiology of Reading," published a short time since in the *Annales d'Oculistique*, and the practical hints this observer mentioned as to the formation of type.

Mr. W. B. HEWETSON showed a modification of the Swan Electric Lamp for ophthalmoscopic use, and demonstrated its application on some patients. The glass globe of the lamp was frosted to prevent too great a glare, and to obviate the reflection of the image of the luminous arc on the cornea.

Mr. HARTLEY also showed an Electric Lamp for surgical purposes, which fitted on the forehead in the same manner as a laryngoscopic mirror.

Reviews and Notices of Books.

Lectures on Diseases of Children. By Dr. EDWARD HENOCH, Director of the Clinic and Polyclinic for Diseases of Children in the Royal Charité and Professor in the University of Berlin. pp. 350. Low's Library of Standard Medical Authors.

THE present volume purports to be a translation of Dr. Henoch's lectures, which were published in Berlin in 1881. The style of the translation is not elegant. There are a few Germanisms and many Americanisms employed, for which a glossary seems almost requisite. In a book issued for the use of English readers we must protest against the use of such words as "euphoria," "pædarthrocace," "sprue," and "zwieback." On comparing a few of the chapters with the original we must admit that the author's meaning, so far as we can judge, is fairly rendered. The illustrative cases,

however, which form one of the best features of the work, are sometimes slightly curtailed, and occasionally one is entirely omitted. This we consider quite unjustifiable in the published translation of a book, unless it be notified at the outset that certain excisions have been made. We have also to complain that the translated work is much less valuable to English readers than would have been the case if equivalent English weights had been added to the prescriptions and the equivalent Fahrenheit reading had been given in the various references to temperature in disease. In spite of these defects, which we hold to be real defects, we are thankful to have the book in English form, and shall briefly refer to some of the views set forth in the lectures before us.

The diseases of the new-born are very properly considered in a section apart from the rest. There are many points in the clinical chemistry of early infancy which are quite special to it, and deserve a great deal more attention than they have generally received. We cannot say that Dr. Henoch has added much that is new, but his chapter is satisfactory as far as it goes, and has the merit of explicitly stating what is known and what are the defects of our knowledge. The same remark may be made with regard to the sections on dyspepsia and atrophy. Of late years there has been a very proper revulsion against the frequent glib and unjustifiable diagnosis of tabes mesenterica in cases of marasmus due to insufficient or improper feeding. But, although it is quite true that, as a rule, tubercle does not enter into our clinical horizon in children under twelve months old, it is important to bear in mind, as Dr. Henoch has insisted, that even in infants a generalised latent tuberculosis may be found on post-mortem examination, when during life there has been nothing to distinguish the case from the general run of marasmic infants.

There is a fair though incomplete description of hereditary syphilis. We are astonished to see the statement that affection of the spleen can rarely be determined clinically in this disease, and also that no mention is made of interstitial keratitis and choroiditis as frequent manifestations of it. It is clear that Dr. Henoch is not acquainted with Colles's law, from his recommendation that, if the mother present no evidences of the disease, she should only be allowed to suckle her syphilitic child if the lips and mouth of the latter are normal. Now, as a matter of fact, the lips and mouth of syphilitic children are very rarely normal, and such a rule as the above, which would deprive the child of its mother's milk, would often be fatal. But surely, so far as risk to the mother is concerned, it may now be taken for granted that no mother gives birth to a syphilitic infant, and afterwards contracts a chancre from her own child, whatever the condition of its lips and whatever her previous symptoms may have been.

In the treatment of the convulsions of infancy, Dr. Henoch places chief reliance on the early employment of chloroform inhalation, which he considers only contra-indicated by the presence of collapse with small rapid pulse and cold extremities. Though admitting the existence of the reflex disturbance of teething as a probable factor in causing convulsions, the author has seen no reason from his own experience to justify incising the gums.

In the chapter on idiopathic contractures, better known as tetany, there is an interesting observation as to the association of the attacks in one case with the passing of small uric-acid concretions.

The subject of chorea appears to us to be dealt with in an excellent and judicial manner. Whilst unable to accept the embolic doctrine, Dr. Henoch emphasises the frequent association of this neurosis with rheumatism, especially of a mild type, in regard to joint affection. With our present knowledge we can only speculate as to the link between these two conditions; but Dr. Henoch's opinion seems to us satisfactory, which is to the effect that the cardiac affection has nothing to do with chorea; both are due to the same cause—viz., rheumatism,—which appears to act in some unexplained manner upon the centre of coördination. In regard to association with other diseases, one case is referred to in which it developed two weeks after the end of an attack of diphtheria and two others in connexion with scarlet fever. From the brief report of one of the latter cases it appears that severe joint affections and loud apex murmur also occurred.

In the treatment of this neurosis Dr. Henoch seems to have boxed the compass in very much the same way as English physicians, and come to about the same conclusion held by most—viz., that arsenic in small doses is, on the whole, the best drug to give. The term "chorea electrica" is introduced by the author for a group of cases of sudden lightning-like twitchings occurring from time to time in the muscles of the neck and shoulders and also in other parts, and which bear the greatest resemblance to those produced by a weak induced current. The group of cases is a definite one, and quite different from that of true chorea, and it deserves a special name. The electric simile is a good one, and exactly describes the appearances; whether the generic term "chorea," which, we take it, carries with it the idea of incoördination of voluntary movements, should be used is doubtful.

The chapter on tuberculosis of the brain is excellent from what may be called the clinical pathological side. Dr. Henoch insists on the importance of remembering that in children there may be extensive chronic brain-disease without its being translated into localising symptoms.

Passing to the diseases of the respiratory tract, we notice the statement, which we can substantiate, that in feeble, badly nourished children evidence of pneumonia may be found at the autopsy, although for some days before death there may have been no pyrexia.

We are greatly disappointed that Dr. Henoch should give any support to the antiphlogistic treatment of acute inflammation of the larynx and trachea in children. In this view he is, no doubt, hampered by his adhesion to the doctrine that membranous croup and laryngeal diphtheria are distinct diseases. With the general treatment of diphtheria as set forth in a separate chapter we find ourselves in almost complete accord. With the spray of weak chlorate of potash solution, nasal douches where there is much fetor, the avoidance of cauterisation of any kind, the use of bark and good nourishment, the early performance of tracheotomy when there is increasing retraction—with all these recommendations we entirely and heartily agree.

But to return to the cases which at the outset, even to the believer in two forms of membranous disease, are of doubtful nature. Whatever views a medical man may hold as to the identity or otherwise of croup and diphtheria, the first question he asks himself when called up in the night to see a child with acute laryngitis is whether membrane is probably present or not. This question is often quite unsolvable; and yet he must act. Now with regard to the use of tartar emetic in single or repeated doses, if the case is non-membranous it will probably recover under the patient employment of milder measures. On the other hand, if membrane is present, the mere dislodgment of a piece which may possibly be brought about by the act of vomiting will not cure the affection, and the repeated use of tartar emetic will certainly lower the patient and lessen his chance of living through the disease, whatever its effect may be in altering the character of the local inflammation.

Dr. Henoch admits the danger of antiphlogistic treatment in diphtheritic laryngitis; and he also acknowledges the extreme difficulty of distinguishing some cases of membranous croup from laryngeal diphtheria; therefore, accord-

ing to his own showing, there is risk in the employment of antiphlogistics in a doubtful case. For our own part, we have no doubt that the blame of many fatal tracheotomies lies at the door of previous antiphlogistics, and that it would be a solid gain to the therapeutics of affections of the larynx in children if tartar emetic were banished from our pharmacopœia.

Dr. Henoch gives a good clinical picture of cases of splenic cachexia in young children, which he points out are quite distinct from leucocythæmia. He does not appear to consider that these cases have any relation to rickets, the accompanying signs of which it must be admitted are often scanty, nor does he refer to the starting of some of them in the persistence of the early splenic enlargement of congenital syphilis. The chapter on pleurisy is rather disappointing. Only a moderate number of experiences of the operative treatment of the disease is referred to, and many important points are insufficiently discussed. In the account of scarlet fever the author does not commit himself to any definite view as to the nature of the joint affection, and is at pains to maintain that the membranous affection of the pharynx often present is not diphtheritic. He admits, however, the frequent complication of diphtheria with measles. The employment of cold baths in both typhoid and scarlet fever in children is discouraged. The account of rötheln is meagre and inadequate, and under the head of varicella there is no mention of the gangrenous variety. We have no space to discuss further the interesting chapters of this book, but we may briefly sum up our general impressions of the whole.

Although there is much with which we cannot entirely agree, we have found this collection of lectures one of the most suggestive works published of late years on the diseases of children. The style is clear and free from the vice of prolixity. The book is full of practical clinical observations, obviously the outcome of a very extended experience. The occasional tone of dogmatism which is manifest may be forgiven, because the work is so avowedly and frankly personal. Moreover, it is only fair to suppose that this personal character of the book explains the omission or scant reference to many observations, not only of the author's own countrymen, but of English workers in the same field of medicine.

THE POISONING BY ARSENIC IN LIVERPOOL.

THE two women Catherine Flannagan and Margaret Higgins, the commencement of whose trial was noticed in last week's LANCET, were on Saturday last both found guilty of the wilful murder of Thomas Higgins, and were sentenced to death. The case, though a very ordinary one in its principal features, possesses several points of great interest. The facts, so far as they concern medical readers, are soon told. The deceased was the husband of one of the prisoners, who are sisters. He was a hodman, aged forty-two, residing at the time of his decease in a cellar in Ascot-street—a street in the northern part of Liverpool inhabited by working men. He appears to have been in fairly good health up to within about ten days of his death. From that period he suffered from vomiting and purging, which Dr. Whitford, the district medical officer, who attended him, attributed to an attack of dysentery brought on by improper food and drink, in which the deceased admitted that he had been indulging. Dr. Whitford prescribed a mixture containing bismuth, opium, and chloroform, but the symptoms did not subside; and within a few days of his first visit he was applied to for a certificate of death, which took place on October 2nd. He was surprised at this, which was quite unexpected by him, and closely questioned the prisoner Higgins as to the symptoms before death. She stated that her husband had "bloody stools," and as the man had died amidst every surrounding circumstance of poverty, being a parish patient, and dwelling in a wretched cellar, he could see no apparent motive for foul play. But a day or two after, Patrick Higgins, a shoemaker, brother to the deceased, called upon him and stated that his brother was insured in different clubs and insurance offices for what was a very large amount for a man in his circumstances, being £108. Dr. Whitford referred him to the coroner and saw the latter himself. He obtained an order to make a post-mortem examination, and on proceeding to the house with the beadle, found the deceased being placed in his coffin and the funeral coaches in the street. The funeral was stopped, and the autopsy was made by Drs. Whitford and Limrick, revealing appearances of an irritant poison. The viscera were delivered to Mr. Davies, analytical chemist, and an inquest was opened. Mr. Davies found arsenic in nearly all the viscera sent to him, and estimated the quantity as equal to 0·33 of a grain of white arsenic. There were thus all the elements of a very ordinary case of arsenical poisoning: a strong pecuniary motive, gross deception practised on the medical attendant, proposed speedy burial, and flight of the prisoner Flannagan, who had attended the deceased with her sister, and had administered some liquid to him very shortly before his death. The prisoner Higgins was at once arrested, and her sister was after some days also arrested in a suburb of Liverpool. Suspicion being aroused, inquiries by the police revealed other doubtful circumstances in connexion with several deceased persons, who had died while under the care of one or both prisoners. The body of Margaret Jennings, aged eighteen at the time of death, which occurred in January, 1883, was exhumed in November, and examined by Mr. F. W. Lowndes, surgeon to the Liverpool police, who found the body well preserved considering the interval of ten months which had elapsed since death. The viscera were forwarded to Mr. Davies, who found arsenic in the stomach, small intestines, liver, and left kidney. Two more bodies, those of Mary Higgins (aged ten) and John Flannagan (aged twenty-three), were exhumed in January last, and examined by Mr. Lowndes and Dr. Whitford. The body of Flannagan was remarkably well preserved, though he had been buried more than three years; there was no discolouration of the skin, and, excepting the tip of the nose, the features were entire; there were no indications of any natural cause of death, the organs, though shrunken, being remarkably healthy. The body of Higgins was also very well preserved; there were pleuritic adhesions on both sides, and effused blood in each pleural cavity. Each body presented appearances of irritant poisoning, the golden yellow colour so often observed in arsenical poisoning being well marked, as well as red patches diffused all over the stomachs and bowels. The analysis was conducted by Mr. Davies and Dr. Campbell Brown jointly, and revealed the presence of arsenic in large quantity. In the viscera of Mary Higgins it was estimated that one grain of white arsenic was discovered, and in those of John Flannagan between three and four grains were found. In a market pocket belonging to the prisoner Higgins a minute quantity of arsenic was found in the fluff, and on boiling the substance of the pocket itself arsenic was found in the solution. A bottle found in the house of the prisoner Flannagan contained a small quantity of liquid, which proved to be water containing arsenic with some vegetable and other matter. There were no indications in the viscera of any solid arsenic, nor of soot or indigo, hence the analysts concluded that arsenic must have been administered in some liquid. This was the only weak point of the prosecution, as, in spite of a reward of £100, no proof of any purchase of poison was forthcoming. But on the first day of the trial Dr. Campbell Brown found by actual experiment that on dissolving some fly-papers in water he obtained a liquid identical with that found in the bottle in Flannagan's house. The prisoner's counsel suggested that the arsenic might have been in the bismuth prescribed by Dr. Whitford, but Mr. Davies with intuitive sagacity had anticipated this, and on analysing a sample of the bismuth in use at the parish dispensary found it perfectly free from any arsenical impurity. His evidence, and that of Dr. Campbell Brown, were given most admirably with the most scrupulous exactness, and in such a manner as to convince the jury that every care had been taken to exclude any source of error. The defence was most ably conducted by Mr. Shee (son of the late Mr. Justice Shee) and Mr. Pickford, and the summing up of the judge (Mr. Justice Butt) was a model of fairness and impartiality. Very strong comments were made on the loose system of insurance adopted, it being shown that the deceased was insured without his knowledge, and without ever having undergone any medical examination whatever.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 23, 1884.

THE decision of the Council of the Royal College of Surgeons of England to convene a general meeting of the Fellows and Members to take into consideration the alterations proposed in the Charters by the Council, constitutes an era in the history of the College, and marks an epoch in the progress of medical reform. After a conflict lasting nearly half a century, the Council has at length been made to realise that the Corporation does not consist exclusively of the twenty-four Members of Council, but that the Fellows and Members, numbering in the aggregate nearly 18,000, have also corporate rights. This acknowledgment is a positive victory for the Fellows and Members, and the fault will be their own if its fruits are left ungathered. We have already explained the circumstances in which the proposal to submit the proposed alterations in the Charters originally arose. (See THE LANCET, Jan. 19th, p. 122; Jan. 26th, p. 169.) Though there was even at that time not the smallest doubt that a general meeting of the Fellows and Members would be held, it was still uncertain whether the Council would have the sagacity to convene the meeting of its own free will, or whether it would have to be forced by a requisition. It might seem ungracious to scrutinise too closely the motives which ultimately induced the Council to accede to Mr. ERICHSEN'S motion, but it is an open secret that some members of the Council were at first inclined to oppose it, and even to show angry resentment at what was deemed the premature announcement of the notice. Reflection brought wiser counsels; and a letter from the Association of Fellows, dated Jan. 29th, asking that a copy of the proposed alterations should be sent to every Fellow and Member, completed the work of conversion. When Mr. ERICHSEN brought forward his motion on the 14th instant it was, after being seconded by Mr. CADGE, carried *nemine contradicente*. It would be easy to account for the change of front. It is enough to note that even the Council of the Royal College of Surgeons of England is amenable to the force of public opinion when this force can be properly applied. The Fellows and Members may profit by the experience and learn that union and organisation mean influence and power.

The Fellows and Members having obtained an acknowledgment of their status in relation to the constitution and management of the College, it is of the first importance that the occasion should not be allowed to pass unimproved. At the meeting to be held next month (probably on the 27th) the Council will not only report what alterations it proposes to make in the Charters, but will invite suggestions and recommendations on these and any other alterations that may seem desirable. When the alterations already proposed come to be considered they will be found to fall far short of the requirements of the time. Others, and more sweeping ones, will be needed. No new Charter will be acceptable that does not bestow upon the Fellows and Members a larger share in the management and control of the affairs and fortunes of the College. It is desirable that those who are most actively interested in the political and educational position of the College should take steps to define and formulate their opinions before the forthcoming meeting. Though it has not succeeded in gaining the confidence of many influential Fellows, the Association of Fellows does perhaps possess the apparatus for ascertaining the wishes and opinions of the Fellows, and a considerable portion of the Members.

THE prospects of the Medical Bill are very good. A change of Government would probably have been fatal to any hopes of legislation this year for the suppression of a sharp competitive traffic in licences to practise medicine, but this accident is for the present averted. The responsible members of the Government by dint of much personal trouble last year have the subject at their finger ends. They know exactly the demand, the feeling of the profession, the nature of the opposition, and, we have good reason to believe, are only waiting a favourable opportunity for the reintroduction of a Bill which has already passed through the House of Lords, which is substantially accepted by the English licensing bodies, and which is based on the recommendations of a Royal Commission of the greatest authority. Our readers will remember that we have always found in the nature of the opposition a powerful argument for the passing of this measure. A Bill which excited no opposition would be a worthless measure. We are not amongst those who would derive any satisfaction from such a Bill. We want a Bill which will abolish half diplomas, and which will, besides making diplomas entire, abolish competition among the bodies which have hitherto granted them. It is perhaps too much to expect that Corporations which have enjoyed the individual privilege of placing men on the Medical Register should be pleased with an alteration in the law which will only allow them to do this in association with other similar bodies, and even then under stricter conditions of supervision than hitherto. But the profession is greater and of more importance than any of its Corporations; and if it is necessary that the power of individual licensing should cease and determine, the latter will have to submit. We will not exhaust the patience of our readers by arguing that this is necessary. The Medical Council has often said so; the profession in overwhelming numbers, and in various ways, has said so; two or three successive Governments have said so; and the present Government is acting on the report of a Royal Commission which has irretrievably doomed the existing system.

It is, however, a little surprising in these circumstances to find a body like the College of Surgeons in Ireland trying to oppose this inevitable change, and to get up a cry of injury and of unjustifiable State authority. The College is too late, and will only impair its claim to public respect by its ill-advised attempt to resist reforms which are based on a report which had the unqualified assent of one of the College's most distinguished Fellows—Dr. ROBERT MCDONNELL. It is reported that the College in this matter is led, or rather misled, by Dr. KIDD. This is still more surprising, as he has but recently expressed himself clearly as to the tendency and nature of the present system. Here are his words: "It must be

admitted that the tendency of the system under which we are at present is to induce competition for candidates by lowering the standard of education and examination." The author of these words has induced his College, or rather a few of its Fellows, to pass a resolution to use all their influence to "preserve the chartered right of conferring a title to practise." We will not stop to point out to Dr. KIDD that his College has no such right in its entirety even now. It confers a right to half-practise the medical art. But its unfortunate licentiate finds himself, as far as the licence of the College is concerned, an unqualified practitioner in regard to four-fifths of the cases of ordinary medical practice. Without dwelling on this point, or on the amusing appeal to the readers of an Irish contemporary, "as they value their lives and happiness," to oppose this Bill, we would like to ask Dr. KIDD if he proposes to continue the system which tends to "induce competition" and "to lower standards." We venture to think Dr. KIDD has forgotten his own consistency in this strange and hopeless movement, and the general sentiment of his Irish medical brethren, very ably expressed in a letter to the editor of the *Irish Times* by a Fellow of the College, and the President of the Irish Medicine Association, Dr. JACOB. If the "chartered privileges" of the Irish College are to bar the way of this great reform, any "chartered privilege" will do to resist improvement. We appeal to Dr. KIDD himself to reconsider his position. If the chartered privileges of the English Colleges are not to stand in the way of this Government Bill, *a fortiori* must those of Ireland not do so. Ireland herself is as deeply interested in legislation for the abolition of competition in licensing as England, and the College of Surgeons in Ireland and all her members should decline to follow in this matter the lead of Dr. KIDD, for the sake of the interests as well as the reputation of their College, which under the new Bill will still count as a great power in Irish medical education and examination.

THE verdict returned by the jury at the trial of the sisters CATHERINE FLANNAGAN and MARGARET HIGGINS for the murder of THOMAS HIGGINS, husband of the latter, was in accordance with the dictates of common sense, and a logical conclusion from the facts established beyond all reasonable doubt by the prosecution. It is not often that so many strands are found wherewith to weave the skein of circumstantial evidence. In the first place there was an obvious and, to our mind, a sufficient incentive to the murderous act—a despicable one, it is true, but still one which has too often served to prompt such natures to crime. In order to estimate the adequacy of the motive in a particular case—i. e., in so far as it will afford a reasonable explanation of the act—many factors have to be taken into account, such as hereditary mental obliquity, habitual neglect of the sense of moral obligation, absence of surrounding influences calculated to restrain the passions, the ratio, if we may so term it, between the social and pecuniary position of the criminal and the amount of his ill-gotten gains, and, lastly, the question of temporary aberration of intellect or outburst of impulsive insanity.

Then, as to the means by which the end was effected in this instance. On the one hand, they arose out of the possibility of obtaining a poisonous drug in more than poisonous quantity—for there is every reason to believe that there were many victims of the foul conspiracy; and on the other, from a system of monetary enterprise that offered an inducement to crime and a premium to murder—a system as much calculated to ensure death as life, and especially dangerous in its bearing upon the infantile portion of the community. It may be, as suggested by Dr. CAMPBELL BROWN, that the arsenic was derived from "fly-paper"; at any rate, it is quite certain that such a source would yield a fatal dose. The paper is impregnated with a solution of sugar and arsenite of soda or potash. Two ounces of this liquid, containing two grains and a half of arsenious acid, killed a healthy girl, aged nineteen years, in thirty-six hours. In support of Dr. BROWN'S theory, it may be mentioned that arsenic in a soluble form was found in the texture of a market pocket belonging to the woman HIGGINS. Assuming the above hypothesis to be correct, it does not follow that the poisoners were aware of the precise nature of the poison, for it is difficult to imagine that even they were so ignorant of its symptoms and the ease with which it can be detected as to think that they could use it with impunity, and commit wholesale slaughter, with any great expectation of eluding justice.

The first question the jury had to decide—Did the man HIGGINS die from the mortal effects of arsenical poisoning?—received an emphatic reply in the affirmative. A quantity of arsenic was found in the stomach, and even in the spleen, of the deceased, and there were the usual pathological signs. Moreover, when the symptoms came to be reviewed they were seen to be singularly suggestive, not to say indicative, of poisoning by arsenic. There had been vomiting and purging, a sense of dryness and constriction in the throat, and, lastly, death from syncope after several days of great suffering. One symptom, diarrhœa, was so pronounced that the medical man, who saw the case more than once, certified to its being the cause of death; the proximate cause no doubt it was, but "dysentery" is a symptom common to many diseases. We freely admit that under the circumstances Dr. WHITFORD acted circumspectly. Nevertheless we cannot help regretting that, as the case appeared to him so problematical, he did not ask the friends for permission to make a post-mortem examination. Had he done so of course he would have been refused, but the very refusal, and the manner in which it was made, would probably have aroused his suspicions, and so have led to his demanding an inquest. It is always better to take into account the *possibility* of poisons entering into the causation of disease, especially when the clinical phenomena are embarrassing and equivocal.

It is somewhat curious that the deceased did not suspect foul play, for it is quite clear that he resented the administration of some liquid by the woman FLANNAGAN, and yet immediately afterwards expressed his gratitude to a stranger who gave him a drink of water. *Perhaps* he thought he was merely suffering from alcoholic excesses; *probably* he was beguiled by the assumed devotion of his newly wedded wife; *certainly* he was ignorant that his life was valued at so little, his death at so much, for some of the insurances were obtained without his knowledge.

Were the prisoners at the bar "guilty of feloniously slay-

ing and killing" THOMAS HIGGINS? The following statements made on oath collectively suffice to place the matter beyond dispute. 1. A flask found in the house contained a watery solution of an arsenite. 2. The prisoners were the only persons who had charge of the deceased during his fatal illness. 3. They would be benefited pecuniarily by his death. 4. One of the two (FLANNAGAN) took refuge in flight as soon as she was informed that foul play was suspected, and, besides, she gave instructions to her daughter to remove her photograph from the frame and destroy it. (This no doubt was done to conceal her identity and thus prevent her arrest.) In addition to the above facts, bearing directly on the case, there was strong corroborative testimony to the guilt of the accused, who were also charged with being answerable, severally or together, for the deaths of three other persons —the daughter of the deceased man by a former wife, the son of the older prisoner (FLANNAGAN), and a girl not related to either of the two women. The bodies of these three were exhumed, and on analysis were found to contain arsenic; in one of them in sufficient quantity to cause death, although three years had elapsed since burial. We quite agree with Mr. Justice BUTT that the history of these cases should be received in evidence. With a proper caution from the bench as to the value to be attached to it, the prisoners would not be likely to suffer from its being tendered, whilst the prosecution would not lose what might turn out to be an essential aid to their securing a just conviction. Whatever may be the strict legal interpretation of the act at common law, the decision of Mr. Justice BUTT is incomparably more equitable than the refusal of the late Mr. Baron MARTIN to admit the collateral evidence. The exhumed bodies were well preserved, just as one would expect to find after death from arsenical poisoning. It is said that the features of the body of JOHN FLANNAGAN were quite recognisable, although three years had passed since interment. *A propos* this, we may quote a passage from TAYLOR'S System. "The preservative effects are occasionally such that I have seen the pathological changes in the mucous membrane well marked after the body had been nearly two years in the grave."

It would be an interesting psychological study to trace the state of mind of the convicts from the first-born thought of murder, through the various moods of vacillation and resolution; of hope that the deed would "trammel up the consequence," and fear of detection and punishment; and so on, to the stage of action, and this past, the recoil from the contemplation of the deed or callous indifference to it. Success in the first instance emboldened them to further action, and familiarity bred contempt of danger and fear.

Three conclusions, amongst others, may be drawn from a study of the Liverpool poisoning case: (1) That poisoning by arsenic is almost certain sooner or later to be found out; (2) that petty insurance companies which ply their trade with such miserable delusions are open temptations to murder; and (3) that the existing laws which regulate the sale of poisons are defective in their scope, and too lax in their application. We trust that recent experience may serve as a warning to the Legislature and an admonition to the Executive.

Since the above was written, we have seen it stated that the woman FLANNAGAN has confessed the crime, and admitted that the poison used was a solution of arsenic obtained from "fly papers." It is reported that other arrests are likely to follow.

THE application of antiseptic surgery to field service is a subject in which not only all army medical services, but all nations, may be said to be interested. Sir JAMES HANBURY and the members of the Woolwich Military Medical Society are to be congratulated on the very instructive discussion that took place there on the 15th inst. The meeting was a very successful one, and we are extremely glad to notice these signs of the welding together of the civil and military members of the profession; for it is obvious that they have objects and sympathies in common, and any advance in science or practice in either must soon extend to both. Listerism has revolutionised surgical practice, and no sooner were its results established than efforts were made to apply its methods to war. Such a measure of success has been already accomplished in the latter direction that no two opinions are now entertained on the subject. It has ceased to be a question whether antiseptic surgery should be practised in war; it is rather as to how far its immediate application is practicable to the wounded on the battle-field itself, and what are the best and easiest methods of doing this. Sir JOSEPH LISTER expressed his great satisfaction at finding that his system had taken such root in the army medical services, and in his admirable speech he very plainly indicated the direction which future efforts should take in practically adjusting the principles of antisepsis to the contingencies of war. It is very likely that we shall not soon reach a finality in the matter, but much progress has already been made.

Wars differ very much from one another—no two are exactly alike,—and, as Sir JAMES HANBURY remarked, our wars are commonly small ones. They may all be included, however, in PIROGOFF'S expressive remark—"War is an epidemic of injuries." A first field dressing, as ordinarily applied, commonly involves a waste of time to those who put it on as well as to those who have to cut it off at the first regularly constituted dressing station or field hospital. Having determined what the dressing is to be, it is most difficult to fix upon a place in the soldier's dress where it can be kept free from dirt and be at the same time easily accessible. If the future field service dress of the soldier is to take the form of a loose Norfolk jacket with lots of pockets, then one of such pockets may be used exclusively for this purpose. The difficulty however, of providing, and still more of applying, such dressings on a scale at all commensurate with the number of wounded, many of whom may be almost or actually under fire at the time that aid reaches them, must sometimes prove insuperable. And, after all, the one imperative thing is to save a wound from being defiled by dirty fingers or dirt of any kind, so that it must commonly happen that the less done at first the better. In any case the first dressing must be of the simplest kind, very easy of application, and not requiring any bandaging likely to constrict the wounded limb. The application of a pad of some antiseptic cotton-wool with a triangular bandage, just sufficient to occlude the wound with an antiseptic of some kind, and protect it from dust and dirt, commends itself as

the most practicable. The wool is very light, compressible, and portable, and it will in any case act as a filter, while the triangular bandage can be rapidly applied, and entails but little risk of causing injury by constriction. There is no reason why the orderlies specially told off to accompany the surgeons of corps should not be provided with other antiseptic agents in their haversacks, and if field panniers are to form part of the surgical equipment of corps, these will also be available for the same purpose.

Transport has always been, and probably will always be, the difficulty in our wars. No medical service, be it ever so well organised, can render the best and most efficient aid to the wounded in war without transport. In battles on a large scale, as in European warfare, it would be impossible to provide every regiment with all the requisite appliances for dressing, and no better system can be devised than that which at present exists for promptly stripping the battle-field of its wounded. The bearer companies and dressing stations are essential to the collection, selection, distribution, and dressing of the wounded, and their subsequent relegation to the field hospitals. But in small wars with semi-civilised races, we think it would be quite practicable to advance a section of a field hospital with a portion of a bearer company well to the front, so as to perform the part of a dressing station and field hospital combined, to which, with fairly adequate transport, the wounded could be promptly carried, and there secure once for all a really efficient antiseptic dressing. Such a combined field hospital and dressing station would obviously have to be provided with every requisite for the purpose, and be under the direct and immediate supervision of skilled aid; and it appears to us far better, under such circumstances, to transport the wounded there at once, than to risk the defilement of wounds by the hurried application of any previous dressing. Of course it may be necessary in some cases, if only to secure its moral effect, to conceal the blood and wound from the patient and his comrades, in which case the simplest possible antiseptic dressing should be applied. If we do not mistake the spirit of Sir WM. MAC CORMAC'S practical remarks, founded on war experiences, they tend in this direction.

The whole tenour of Sir JOSEPH LISTER'S speech was to simplify the method to be pursued and to narrow down the materials to those only which were absolutely essential to secure the object in view. In corrosive sublimate we have a very powerful, cheap, and safe antiseptic agent; a very dilute solution suffices for ordinary purposes, and his discovery of the valuable property of glycerine as a solvent of corrosive sublimate facilitates the preparation and practical application of this antiseptic. Dredgers for lightly dusting wounded surfaces with iodoform seem to be a simple and ready method; no constitutional or injurious results appear to have followed the use of this agent in the late Egyptian War.

To sum up. An Army Medical Service requires, first of all, an adequate amount of good animal transport, a bearer column trained in the picking up and removal of the wounded, a medical staff with a clear notion of the objects and simplest methods of effecting antisepsis, and a number of subordinates who, by their aptitude and training in hospitals, are competent to make good nurses. With an organisation of this kind, and with the materials available for the purpose, antiseptic surgery on field service has a grand future before it.

THERE is such a thing as mind-strengthening work. In truth, it is, as every physiologist knows, only by work minds, or, more correctly speaking, brains, can be strengthened in their growth and naturally developed. The exercise of those centres of the nervous system with whose function what we call consciousness and intellect are associated, is as essential to their nutrition as activity is to the healthy growth of any other part of the organism, whether nervous or muscular. Every part of the living body is developed, and enjoys vitality, by the law which makes the appropriation of food dependent upon, and commensurate with, the amount of work it does. It feeds in proportion as it works, as truly as it works in proportion as it feeds. This canon of organic life is the foundation of those estimates which physiologists form when they compute the value of food in measures of weight-lifting power. It is, however, necessary to recognise that, although these propositions are true in the abstract, they need the introduction of a new integer or combining power before any sum of results can be worked out. We know that food is practically just as truly outside the body after it has been eaten, digested, and even taken into the blood-current, as it is when it lies on the table. Nutrition is a tissue-function, and its performance depends on the appetite and feeding power—which is something different from the organic *need*—of the tissue with which the nutrient fluid is brought into contact. Again, any particular part of the organism may be so exhausted by work that it has not power enough left to feed. It is a matter of the highest practical moment that this fact should be recognised. There is undoubtedly a point at which work ceases to be strengthening and becomes exhausting — self-exhausting and self-destructing so far as the particular tissue in activity is concerned. The once accepted hypothesis of a separate system or series of trophic nerves is nearly, if not quite, discarded. While we believed in the existence of special nerves of nutrition as possible, it was at least permissible, in a scientific sense, to suppose that recuperation might take place by the nutritive power of these nerves after the last reserve of potential energy had been converted into kinetic force and consumed in work, because the two forces —the force for *work* and the force for *nutrition*—were supposed to be generated by, and accumulated in, different centres. Now, however, that we have ceased to think that the faculty and function of nutrition have been relegated to a special part of the nervous system, it is easy to see—in truth the conclusion is forced upon us—that work may be carried too far, in fact to such a point that not only the last reserve of power for action, but the ultimate unit, so to say, of the force of nutrition, which is, as we now believe, identical with the force of general activity, may be expended in work and the organism left so utterly powerless that its exhausted tissues can no longer appropriate the food supplied or placed within their normal reach. We have said that it is necessary this should be understood. It has a special bearing on the question of brain work in childhood and adolescence.

Just as extreme weakness and faintness of the body as a

whole produce restlessness and loss of control, so extreme exhaustion of the brain produces mental agitation and loss of healthy self-consciousness. This is how and why the "overworked" become deranged. One of the earliest indications, or *symptoms*, of brain exhaustion is commonly irritability; then comes sleeplessness of the sort which seems to consist in inability to cease thinking either of a particular subject or things in general; next, the mental unrestful or uncontrollable thought gets the better of the will, even during the ordinary hours of wakefulness and activity, which is a step further towards the verge of sanity than the mere persistence of thought at the hour of sleep—this way lies madness,—and, finally, the thinking faculty, or, as we say, the imagination, gets the better of the will, and asserts supremacy for its phantoms, those of sight or of hearing being the most turbulent and dominant which happen to be most commonly used in intellectual work, and therefore most developed by the individual cerebrum—this *is* madness. Such is the story of over-work of the brain or mind; and it is easy to see that at any stage of the progress from bad to worse the will may be overpowered, and the judgment perverted, in such manner as to impel the victim of this mind-trouble to seek refuge in death, or to so disorder his consciousness that he supposes himself to be acting in obedience to some just and worthy behest when he commits an act of self-destruction or does something in the doing of which he accidentally dies. Such, in the main, is the story of suicide from over-work.

What, then, can be the excuse pleadable by those who heap on the brains of the young or adolescent such burdens of mind-labour and worry as exhaust their very faculties of self-help and leave them a prey to the vagaries of a starved brain? We pity the suffering of those shipwrecked sailors who after exposure in an open boat, perhaps without food, for hours or days, "go mad" and, raving of feasts and pleasures the antitheses of their actual experience, fall on each other, or throw themselves overboard. Have we no pity for *brains* dying of lack of food because we have compelled them to expend their very last unit of force in work, and now they are distraught in the act of dying? These considerations are suggested by the story of the recent suicide of a pupil teacher, and by the great and pressing politico-social question which similar cases have raised. It may be that other motives for or influences to self-destruction may be discovered when the most recent case of suicide reported comes to be more closely investigated. We lay no stress on this particular incident; we only regard it as one of too many occurrences which serve to illustrate our argument, and should enforce our appeal in favour of moderation. It may be a sublime ideal, that of a highly educated people, but if it should happen that the realisation of this beautiful dream of our philosophic reformers can only be achieved by the slaughter of the weak, it will scarcely console the national conscience to reflect that, after all, "the survival of the fittest" is the law of Nature.

DR. B. W. RICHARDSON will preside at the explanation to be given by Dr. Neale of the Theory and Action of the Chemical Lung, as applied to the sick-room and crowded assemblies, at the Parkes Museum on the 28th inst.

Annotations.

"Ne quid nimis."

ROYALTY AND POVERTY.

THE Prince of Wales is to be a member of the Royal Commission of Inquiry concerning the dwellings of the poor. This is a most admirable selection; and we are glad to hear that His Royal Highness has already made personal inspection of some of the worst localities in St. Pancras and Holborn. The interest which members of the royal family generally take in social questions is well known. The late Prince Consort struck the key-note of this most excellent personal service for the good of the poor and the increase of social happiness, and his children have harmoniously acted on the lines he laid down. By so doing they have won the love and respect of the people of this country, and done more to establish the throne on a solid foundation than if they had led armies to victory. The Prince of Wales has always been in the front of this campaign of public usefulness, and it is simply acting in his own worthy way that he undertakes this new and most useful work. The fruitfulness of such a mission as His Royal Highness has undertaken is likely to be very great. It will be sure to attract special interest to the work; and we cannot but feel that it is exceedingly probable that the fact that the Heir Apparent has interposed in the attempt to improve the dwellings of the poor, and to better the condition of the lower orders of the people generally, will give new zest to a work out of which nothing but good can come.

THE RESEARCH ON CHOLERA.

AS will be seen from the text of Dr. Koch's last report, given in another column, the German Scientific Commission are making good use of the material that has been placed at their disposal in Calcutta. The passages of most interest in that report are those which refer to the confirmation of their original discovery in Egypt of a bacillus in the cholera intestine, and of more precise knowledge concerning its special characteristics. It is to be hoped that they will multiply their observations, both on cholera subjects and on others, in order to add to the strength of their testimony. The criticism which Dr. Koch passes upon the "organisms" discovered in the blood by Dr. Straus, some of which were shown at the last meeting of the Royal Medical and Chirurgical Society, will also, doubtless, attract considerable attention.

THE LONDON FEVER HOSPITAL.

THE statistics of the work done in this eminently useful institution in recent years are valuable as affording the means for comparison with the statistics of the now increasing number of hospitals for treatment of infectious diseases, and especially those of the hospitals established by the Metropolitan Asylums Board. The London Fever Hospital, like most other hospitals for infectious diseases, is mainly used for the isolation and treatment of cases of scarlet fever, enteric fever, and typhus. During last year 709 cases of these diseases were discharged from the hospital on recovery or by death; the numbers in the five preceding years had steadily increased from 507 to 835. The 709 cases completed last year included 566 of scarlet fever, 140 of enteric fever, and only 3 of typhus. The cases of scarlet fever were fewer than in any of the three previous years, whereas those of enteric fever considerably exceeded the completed cases in any of the six previous years. The proportional mortality among the completed cases is shown by the following statistics: Of the 566 completed cases of scarlet fever in this hospital during last year 35 were deaths and 531 recoveries,

showing a mortality of 6·2 per cent. of the total cases; the mean rate of mortality among the 3977 completed cases treated during the seven years 1877–83 was 7·6 per cent. The fatality of scarlet fever in the hospital last year was therefore below the average; it compares, however, still more favourably with the statistics of the metropolitan asylum hospitals, in which 1892 completed cases of scarlet fever were recorded last year, the deaths being 228, and equal to 12·1 per cent. of the total cases. The death-rate from scarlet fever in the London Fever Hospital was, therefore, scarcely more than half that which prevailed in the metropolitan asylum hospitals. As regards enteric fever, the 140 completed cases in the London Fever Hospital included 21 deaths, equal to 15 per cent., which corresponded precisely with the mean rate of mortality among 732 completed cases recorded during the seven years 1877–83. The number of completed cases of enteric fever recorded last year in the metropolitan asylum hospitals was 500, including 80 deaths, which showed a proportional mortality of 16 per cent., but slightly exceeding the rate in the London Fever Hospital. Apart from the valuable facilities for isolation afforded by the London Fever Hospital, the statistics given above supply satisfactory evidence of successful treatment of the cases received in the hospital.

DECREASE OF BLINDNESS IN ENGLAND.

IT seems probable that the statistics of the prevalence of blindness in England and Wales given in the recently issued Census Report may be accepted with less reservation than the returns of other forms of physical infirmity, although dependent, as they are, upon voluntary declaration in the Householders' Schedule on the census enumeration day. There would naturally not be the same inclination to conceal the fact of blindness in a member of the household as that of idiocy or other form of mental unsoundness. It is satisfactory, therefore, to find that the proportion of recorded blindness in the English population showed a further decline in 1881 from the proportions that prevailed at previous censuses. The number of the blind was first enumerated in 1851, when their proportion was equal to 1021 per million of the population. At the two censuses in 1861 and 1871 the proportion of the blind fell to 964 and 951, while in 1881 the proportion had further fallen to 879. The Census Report calculates that if blindness had been as prevalent in 1881 as in 1851, the number of blind persons in the country would have been 3691, or 16·2 per cent., more than the number actually recorded, which was 22,832. This marked decrease in the proportion of the blind in the English population is attributed to "the progressive improvement in the surgical treatment of affections of the eyes, and to the diminished prevalence among children of such diseases as small-pox." Blindness in England has been shown at each of the last four censuses to be more prevalent among males than among females. The proportion in 1881 was 953 per million among males, while it did not exceed 809 among females. In most of the other European countries a similar excess in the proportion of the blind among males is also found to exist. In Ireland, however, as well as in Denmark, Norway, Sweden, and Finland, the proportion of blindness was greater among females than among males. The greater liability of males to blindness, which prevails with but few exceptions throughout Europe, is attributed "to the differences between the two sexes in regard to their occupations, their exposure to accidents, and their liability to disease." This hypothesis is supported by the fact that the proportion of blindness among males, compared with that among females, shows an increasing excess through the active period of life, the excess being largest between twenty-five and forty-five years of age. Above the age of sixty-five years the proportion of the blind is, however, greater among females than among males. Judged by the figures given in the Census Report for 1871, it may be assumed that it is only among extremely old persons—that is, over eighty-five years of age—that females in England are more liable to blindness than males. The Census Report for 1881 attempts to distinguish the "blind from birth" from those who had subsequently been afflicted with blindness, and 1958 of the 22,832 blind persons enumerated in the returns were so described. There is good ground for doubting, however, whether the information given in the enumeration papers on this point has any real value. It is true that very few infants are actually blind at birth, and it is more than probable that the 1958 described as "blind from birth" also included most of those who had "lost their sight at a very early period of life." Having regard to the hypothesis that the excess of recorded blindness among males is in great measure due to the nature of their occupations, and to their greater exposure to accident, it is somewhat remarkable to find, as a rule, the largest proportion of blind persons to the total population in rural counties. The highest county proportions in 1881 were 1262 per million in Devonshire, 1283 in Gloucestershire, and 1728 in Cornwall; whereas the lowest proportions were 699 in Durham, 723 in Cheshire, 729 in the West Riding of Yorkshire, and 733 in Lancashire. This apparent contradiction may be due to the relatively small proportion of old persons in the last-mentioned counties, the largest ratio of blind persons being found among the aged.

CRIMINAL ABORTION AND MURDER.

AT the Liverpool Winter Assizes, on Tuesday last, Sarah Mallinson, a married woman, fifty years of age, was convicted and sentenced to death for the wilful murder of Louisa Brierley, a single woman aged twenty-eight, by procuring abortion. William Smart, a clerk, of Huddersfield, was tried as an accessory before the fact, and was also convicted and sentenced to death. It appeared from the evidence that the deceased was pregnant by the prisoner Smart. The prisoner Mallinson received the deceased into her house in Sussex-street, Lower Broughton, Manchester, and after being there about a week the deceased died. The evidence made it perfectly clear that the female prisoner had used an instrument to the deceased on at least two occasions, and that death resulted from peritonitis in consequence. The post-mortem examination was made by Dr. Maguire and Mr. Stocks of Salford. Mr. Justice Butt commented severely on the fact of Mr. Estcourt not informing the police as soon as he knew of the abortion having been procured, he having been called in by the prisoner Mallinson and having treated the deceased for peritonitis. The prisoner Smart was proved to have paid the female prisoner money for what she was to do, and the judge laid it down to the jury that if they believed that Smart induced the woman by an offer of money to perform the operation he, though absent, was just as guilty of the crime of murder as if he had been present throughout. If two persons were engaged in an attempt to procure abortion, and the death of the woman operated upon ensued, then they were undoubtedly guilty of murder. This crime would appear to be rather common in Manchester and its neighbourhood. Some years ago Alfred Thomas Heap was convicted at Liverpool under very similar circumstances, and was executed, having previously received five years' penal servitude for procuring abortion. And in 1859 a German practitioner (Stadtmühler) from the same city was convicted and sentenced to death for the murder of a woman on whom he had procured abortion, though in his case the death penalty was not inflicted. It is lamentable to see how little effect these sentences appear to have in

checking this crime, and it must be evident that the cases which come before the courts form only a very small proportion of those which occur.

THE DUTIES OF MEDICAL OFFICERS OF HEALTH.

WE have received a lengthy communication from Dr. Whamond of Jarrow-on-Tyne with reference to an article which we published last week on the "Duties of Medical Officers of Health." Dr. Whamond has, however, misapprehended our meaning. Living in a district where the compulsory notification of infectious diseases is in operation, he considers that if medical officers of health are to be allowed a discretion as to whether or not they need pay a personal visit as regards every case of infectious disease which they hear of, then the general practitioner, or other medical attendant, has to act as an expert in diagnosing for the purposes of the sanitary officials; and with a view of protesting against having such a duty imposed on him, he admits that he has reported cases of measles under the names of totally different diseases. How far such a method of procedure is desirable or not, we do not now propose to discuss; but we would point out that the consideration thus raised has nothing to do with the matter adverted to in our article. The question that had in that instance been referred to us was whether, in a district where it so happens no notification is in force, a medical officer of health, on hearing accidentally of the existence of a case of scarlatina which happened to be under the care of a medical practitioner known always to advise his patients correctly as to the precautions necessary to prevent the spread of infection, was bound under his official instructions to regard it as an outbreak of dangerous infectious disease, and at once to visit it himself, or whether it was within his discretion, at least in the first instance, to send an inspector to make inquiry as to the sanitary circumstances involved. We held that he had such discretion.

AN INTERMENT IN THE GROUNDS OF A SUBURBAN CONVENT.

WE are a very hospitable nation—that is, in our corporate capacity. We take in all the dethroned monarchs and ejected communities of the world and entertain them, or, more correctly, allow them to provide for themselves under the shelter of our ample and ever-outstretched political wing, with great large heartedness. There is not, so far as we are aware, any reason why religious communities should not take advantage of our hospitality and transplant themselves to English lands, although, as a measure of public safety, we certainly think they ought to be inspected by Government officials—but let that pass. We only desire to draw the line at burial within the precincts of the gaol—we beg pardon, the convent. It might be hard to ask that inquests should be held in the case of nuns dying while incarcerated in religious houses, on the same principle that inquests are by law enjoined to be held in cases of prisoners dying in Her Majesty's gaols; but we do think interment within convent walls ought to be prohibited if there be any local danger of insanitary results. We are a long-suffering people; but the worm will turn when driven to extremities, and the worm is likely to be driven to a dire extremity if the lady superiors of convents are to be armed with letters permissory to bury their dead in their back gardens. The phraseology is not ours, and we must disclaim any responsibility concerning it. We simply take it from the *Metropolitan* of the 16th inst. as the title of an incident reported to the Kensington Vestry thus, "Burial in a Back Garden"!

BETTER HOMES FOR THE POOR: AN EXAMPLE.

To those who are not absolutely hopeless of raising the terrible load from the shoulders of the poor, and who are anxious that something should be done in this direction, a perusal of the annual report of a humble society in Aberdeen may be commended. It is characteristic of the people of the North that such a social blot should have been recognised long ago, and accordingly we find the Aberdeen Ladies' Sanitary Association now presenting something like their twentieth annual statement, and showing a practical grasp of the subject, absent from too many of the recent magazine articles and party speeches. Alluding to their efforts towards sanitary and moral reform, reference is made to the hopelessness of preaching decency, cleanliness, and good ventilation to those who cannot pay the rent of more than one room; for the purpose of aiding those striving for better things, the ladies organised a rent fund, which is used to supplement the efforts of the poor themselves. During last year, in May 92 families, and in November 87, were assisted in this way at the trifling cost of £122; and the experience of the Association, extending to over 300 families, is that in no case have the recipients of help sunk lower, while in the vast majority of instances they have risen. The ladies, in addition to supplying soap, washing-powders, whitewashing brushes, and sanitary tracts, endeavour to encourage a love of flowers, and their success in this respect is really marvellous. The fact that over 200 families have with so little outlay been led to a higher ideal of life, and placed amid better sanitary and moral surroundings, is full of hope, and should encourage ladies elsewhere to occupy some of their time in improving the present condition of the outcast poor. What with Royal Commissions of Inquiry, and huge schemes applicable only to London and a few other towns, much time is lost, but such societies as that above referred to will find a suitable field for work in almost any town, and being easy of organisation are likely to be of assistance to any pre-existing societies.

THE METROPOLITAN ASYLUMS BOARD.

AT the meeting of the St. George's, Hanover-square, Board of Guardians, on the 13th ult., Sir Edmund Hay Currie, vice-chairman of the Asylums District Board, attended with reference to a resolution of the guardians recently passed, to the effect that it would conduce to more harmonious working if the Asylums Board would supply the various metropolitan boards of guardians with an authoritative statement showing the present position of hospital accommodation for small-pox and fever cases, with the cost thereof, and the complete scheme for the reception of similar cases, and the total probable expenditure. From the statement which Sir E. H. Currie read, it appears that there is now accommodation in the five hospitals for 250 cases, while the ships at Long Reach can take 350 more. The Board propose to make accommodation in a new hospital at Darenth for 1000 patients, precautions being taken for any emergency. The new hospital at Darenth will cost £100,000, the site £13,500, gas, &c., £5000, a total of about £120,000. In this new hospital only convalescent cases will be treated, the ships being for mild cases, and the other hospitals for acute ones. The managers will have the Acorn Wharf, Rotherhithe, and a pier and a wharf on the opposite shore, and contemplate having a wharf at Fulham. The cost will be £17,000, £8000 and £6000 respectively; while two ambulance steamers might be set down at £9000. With regard to the site at Winchmore-hill for a convalescent hospital for scarlet fever cases, it would be within an hour's drive of the different hospitals. The site had been acquired

with difficulty, and the hospital will be in permanent use. The hospital (to hold 500 patients) will cost £75,000, the site £13,000 or £14,000, and other expenses will amount to £4000. Altogether a total expenditure of £268,000 will provide for 1350 more cases of small-pox, and 2000 more cases of scarlet fever, supposing the contemplated hospital on the south side of the river is built.

CHOLERA IN BOMBAY.

OUR correspondent at Bombay, in a communication dated Feb. 1st, writes:—Cholera still prevails in Bombay. This week there were seventeen deaths, as against twenty-two in the previous week. The number of deaths during the worst of the epidemic of 1883—viz., from July 28th to Sept. 28th—was 660, as recorded in the *Government Gazette*. Professor Koch is hard at work in Calcutta; so busy is he that he has not had time to visit the Exhibition. Whilst at work in Madras he is said to have refused all ice, giving as his reason that he was not satisfied as to the nature of the water from which it was made. People here are much struck with the report furnished to and published by the Madras Government on fish-worms and their connexion with cholera. They constantly ask are entozoa Professor Koch's bacteria, and when told no, rejoice that they can resume eating prawns and pomphlets. It hardly requires a one-twentieth of an inch objective to see entozoa as described in the Madras Government report, but it does to see Koch's germs. Medical men in India feel hurt that the Government does not follow the example of Germany and furnish the means required to enable men to investigate the causes, &c., of the disease. Positive results might not be obtained, negative certainly would, and these results might probably do away with quarantine and prevent future observers travelling over old ground.

ALLEGED DEATH FROM VACCINATION.

THE Local Government Board, having been informed that the death of a child in Blackburn was attributable to vaccination, directed Dr. Page to inquire into the matter. The child was vaccinated on October 25th last, when it was three months old; its pre-vaccinal history being that for the two previous months it had not thriven well, the infant having suffered from occasional attacks of diarrhœa, and having been dosed with "soothing syrup" to keep it quiet ever since it was ten weeks old. The mother, too, returned to her work in a mill when the child was one month old, putting it out with a relative to nurse. The vaccination admittedly did well, the vaccinifer was healthy, and nothing went amiss with other children vaccinated from the same source; and both for a week before vaccination, and for some days after, the diarrhœa ceased. But it returned, and on November 14th the child was seen by a doctor. On and after the day of vaccination the child refused the breast, the returned diarrhœa was sustained, and it gradually "seemed to pine away," until it died of "anæmia; and convulsions four days." With the return of the diarrhœa the soothing syrup was again resorted to, and a neighbour's verdict was that "it had been punished by getting sleeping stuff." This woman often saw the child, but never heard its death attributed to vaccination. In this connexion it may be instructive to note that the informant as to the death being the result of vaccination was the secretary to the Blackburn Anti-Vaccination Society, who never saw the child, but heard of it from the undertaker, who belonged to the same brotherhood. Doubtless they hardly anticipated that such an inquiry would be made as would disclose the history of a child badly nursed, badly cared for, and admittedly drugged before, during, and subsequent to the process of vaccination; this process, notwithstanding all, following its normal course without any ill result whatever.

THE RIGHT TO POLLUTE A NEIGHBOUR'S WELL.

A CURIOUS case showing how the law permits one man to deprive a neighbour of his water-supply came before the High Court of Justice last week. Mr. Ballard, a brewer, and Mr. Tomlinson, a printer, are neighbours at Brentford, and both have on their respective premises an artesian well sunk into the chalk formation to a depth of 300 feet. According to Mr. Ballard, the water from his well has been in use in his brewery since 1849; but in 1874 Mr. Tomlinson, having doubtless in the meantime laid on the public water-supply to his premises, conveyed the contents of a drain leading from a watercloset attached to his printing house into his, now disused, deep well, the result being the pollution of Mr. Ballard's well, and the necessity for discontinuing the use of the water for brewery purposes. Hence Mr. Ballard's action to restrain the defendant from further continuing the practice which had led to the pollution in question. But, according to Mr. Justice Pearson, the law is entirely on the side of the defendant. It has already been decided, he explained, that any person may, on his own property, so deal with the water that he found there as to divert it from his neighbour's property, and so deprive him of every drop of water from the same source. This being the case, the judge had difficulty in seeing why a person who had the liberty of depriving another altogether of his water should not also be at liberty to alter the quality of that water, and hence he decided that the plaintiff was not entitled to any relief. There is not likely to be any appeal in this case, because Mr. Tomlinson has voluntarily arranged with the plaintiff no longer to cause him the annoyance and injury which have hitherto resulted from his method of sewage disposal. The matter will, however, be brought under the notice of Parliament. In the meantime, and in view of the by no means uncommon practice of turning disused wells into cesspools, we may point out for the guidance of others who may be hereafter similarly situated that a remedy may probably be found by applying to any such case one of the provisions of the Public Health Act, 1875. According to section 47, it is enacted that "Any person who in an urban district.....allows the contents of any.....cesspool to overflow or soak therefrom" is liable to a penalty, and to a continuing penalty for every day during which the offence is persisted in. It is also enacted that the sanitary authority "shall abate or cause to be abated" every such nuisance, they recovering the expenses incurred from the occupier of the premises on which the nuisance exists. This, however, by no means removes the difficulty as regards rural sanitary districts, for unless the section quoted is specially declared by the Local Government Board to be in operation in any such district, its operation is exclusively limited to urban districts. In rural districts it would therefore appear that, unless the evil can be dealt with in some other way than that in which Mr. Justice Pearson had to decide, anyone can turn his well into a cesspool, even when by so doing he pollutes his neighbour's.

ARCACHON—THE FRENCH BOURNEMOUTH.

A CORRESPONDENT writes:—To add one more health-resort to the many which now lay claim to hygienic eminence would be a superfluous effort, were it not that every station of genuine salubrity possesses some peculiar climatic gift or gifts which render it the special requisite of certain classes of invalids. No further reason need be given for introducing to public notice the comparatively obscure little port, which, from its situation and surroundings, might be called the Bournemouth of France. Arcachon, thirty miles or so south-west of Bordeaux, stands on a lovely little bay, an off-shoot of the Bay of Biscay, well known for its oyster

culture. Exposed towards the sea, it is sheltered on every other side by sloping dunes covered with pine-forest. The climate, more Britain-like in its humidity than that of the Mediterranean seaboard, is variable but genial, even in winter, as a rule. The nature of the soil, which is sandy, prevents accumulation of moisture and the damp chill consequent upon it. The scent of the pine woods in springtime is most grateful and is omnipresent in the upper suburban town, or "ville d'hiver." The amenities of life in food, board, and company are not wanting, and the restorative virtues of the place are such as should not be forgotten by the phthisical, asthmatic, or other sufferers, who cannot safely shiver through a winter in our own bleak island.

GENERAL GORDON'S PERSONAL INFLUENCE.

IT cannot be questioned that General Gordon — or "Chinese Gordon," as he is called—is *the* man for the task of putting matters right, if that be still possible, in the Soudan; nor can anyone fail to perceive that the influence which has so far protected this remarkable man in the presence of special perils and enabled him, in a considerable measure at least, to succeed, is personal. We think it important to note that the special qualification for this class of work, which General Gordon appears to possess, is a remarkable combination of sympathy and firmness. Many persons have plenty of sympathy, and many are very firm, but as a matter of experience and observation these two qualities seldom go together in the same nature. It requires a specially well-balanced mind to be both sympathetic and firm at the same instant, and in relation to the same subject, or in the performance of a single act. It is quite possible to be sympathetic one moment and firm the next; but General Gordon can combine the two states of mind in one mental posture, and herein lies his strength. He is, besides, a man of quick and clear perception, and ever zealous—that is, reasonably and restrainedly zealous—in what he undertakes, and he is not one who is ever bent on making a *coup d'état*, or who has any great love or leaning towards what is called "brilliancy" in exploit. With such qualities what man may do in such a conjuncture General Gordon will achieve.

CHLOROFORM ALBUMINURIA.

IN man, after the administration of chloroform vapour, as in a prolonged operation, the urine sometimes contains albumen for a short period. M. Bouchard has recently read a paper on death following the subcutaneous injection of chloroform in animals. The injection of one cubic centimetre of chloroform, having a mean weight of 1709 grammes, under the skin of the thigh of rabbits, was always followed by albuminuria and death in three days. If the dose injected be less, death may ensue after one or more injections. In the dog the injection of one cubic centimetre of chloroform per kilogramme of body-weight gives rise neither to albuminuria nor death. To bring about a fatal result, two cubic centimetres per kilogramme of body-weight are required. Neither the rabbit nor the dog ever suffered from any local effects (inflammation or gangrene) at the site of puncture. In man, M. Bouchard has never observed albuminuria after the subcutaneous injection of chloroform, even when the dose was as large as five cubic centimetres. Histological examination of the renal tissues of rabbits after death resulting from the subcutaneous introduction of chloroform showed merely intense congestion. The blood is said not to have contained an excess of urea. Uræmia cannot, therefore, be the cause of death, so argues M. Bouchard; neither is there a direct poisoning by chloroform. Furthermore, when twenty cubic centimetres of chloroform, after having been dissolved in alcohol and water, are introduced directly into a vein, anæsthesia is produced, and albuminuria and hæmaturia result, but the animal always survives. Death is, moreover, not due to reflex action, for it ensues if all the nerves of the leg on which injection is performed be divided.

AN IMPROVEMENT IN THE METHOD OF USING THE FREEZING MICROTOME.

MR. SOLLAS, in the last part of the *Quarterly Journal of Microscopical Science*, remarks that whilst the process of obtaining thin slices of soft structures by means of embedding in paraffin has been brought to great perfection, the freezing method still remains almost in its infancy. As a step in the improvement of this latter method he suggests that instead of freezing in gum, as is now generally practised, gelatine jelly should be used. This ought to be prepared and clarified in the ordinary manner, and should set in a stiff mass when cold. The tissue to be cut is transferred from water to the melted jelly, and should remain in it till well permeated. It is then placed on the piston of a Rutherford's microtome, and the "well" should not be filled; no more should be used than is sufficient to surround the specimen. When well frozen, slices may be cut in the ordinary way, and should at once be transferred to the glass slide on which they are to be mounted. A drop of glycerine must then be immediately added; a cover glass is then superposed; zinc white, or some similar cement, is run round it, and the preparation is complete. In this way a series of entire slices of extreme thinness may be obtained from the most disconnected structures, even when they contain hard siliceous spicules, as in the case of sponges. Mr. Sollas states that diatoms may be cut without difficulty by this method.

SCOTLAND AND THE MEDICAL BILL.

THERE is some reason to believe that the Scotch Medical Bodies will be able to adjust their differences as to the composition of the Scotch Divisional Boards, though one of our Scottish correspondents would seem to imply that the question as between Universities and Corporations is likely to be transformed into one between Edinburgh and her Scottish rivals. Such a change of the Scottish difficulty would be, in point of temperature, like that from the frying-pan into the fire. We hope, for the sake of Scotland, as well as for the sake of the early passing of the Medical Bill, that there will be no more unseemly difference over the composition of the Scotch Board. It is a monstrous thing that there should be virtually two Colleges of Surgeons in Scotland. The Act of 1858 contemplated the fusion of the Edinburgh College of Surgeons, and this ought to take place at once. Be this as it may, no part of the United Kingdom has more interest in an honest measure of reform than Scotland.

POISONING BY TINNED MEAT.

AN instance of poisoning from eating tinned mutton is reported from Glasgow. Of those who had partaken of it two boys died; while several other persons were attacked with violent vomiting and purging, but recovered. It is not probable that in this case the tin itself had much to do with the result. The salts of lead, such as might be formed by the action of putrescent animal matter, of the nitrates derived from it, or of salt, on the tin, are capable, no doubt, of producing the symptoms in question, if taken in large quantity; but it is hardly possible that the tin can have been corroded to this extent. The unfortunate circumstance presents to us rather an example of septic irritation, due, it would seem, to putrefaction of the meat. This might easily arise either from the use of tainted meat to begin with, or from the admission of air to it during or after tinning. We have not adverted to the possibility of

adulteration with injurious foreign matter. Such a possibility naturally suggests itself, and will no doubt receive attention from the authorities who are investigating the case. No evil need result from eating preserved meat if it be carefully prepared and selected, but this incident, and others like it, teach us by sharp experience that more attention is required to our dietetic economy than is now given to it.

MEDICAL SOCIETY OF LONDON.

THE renewed vigour of the 111th session of the Medical Society of London has by no means yet spent itself, as the meeting held on Monday last abundantly testified. Before a large audience, Sir Joseph Fayrer, President, being in the chair, DRS. Coupland, Bristowe, and F. Taylor read papers on the Cold Bath Treatment of Enteric Fever. The meeting was considerably prolonged, and the next gathering will also be devoted to the consideration of the same subject. Drs. Cayley, Samuel West, Gilbart Smith, Myers, and others will either read papers or take part in the discussion. In the library Mr. Fleming showed a surgical Lamp Battery, noteworthy from an almost automatic arrangement by which waste of material and current is prevented. Dr. Sansom made a brief communication on Solid Liniments, many specimens of which were handed round for inspection.

DR. THEODORE WILLIAMS.

NOTWITHSTANDING the hopeful anticipations of our last report, we regret to say that the condition of Dr. C. Theodore Williams, who is laid up at his father's residence at Cannes, still continues to cause much anxiety. After the subsidence of the typhoid fever at the end of the third week, abdominal pains continued to recur; and in the fifth week the temperature rose again, reaching 102° F., and on three days 103°, with distinct indications of peritoneal inflammation. Under the continued use of opiates and turpentine stupes, these symptoms were mitigated; but a few days later the stomach became troublesome, and nausea and retching put a stop to the proper supply of food. Nutritive injections were substituted until the sickness subsided. He is now again able to take food of the lightest kind, some being peptonised, and the temperature is gradually falling.

IS IT SO?

MR. JUSTICE STEPHEN called attention, at the Glamorgan Assizes the other day, to an alleged law which allows persons charged with a crime to be confined in a private asylum under the certificate of "two medical men," and thus protected from the courts. There must surely be some mistake in the report, or the facts would be remarkable. Of course it must have been a private asylum in which the prisoner was confined, or there would not have been *two* certificates. We can readily understand that much confusion might result from the working of such a law; and if not properly administered, the ends of justice might be greatly delayed, if not defeated; but *is it so?*

PURPURA HÆMORRHAGICA.

MUCH interest was felt in the specimens exhibited by Mr. Watson Cheyne last Tuesday evening at the Pathological Society. The presence of micro-organisms in two cases of morbus maculosus Werlhofii has now been settled by an accomplished microscopist beyond the possibility of doubt. The organisms assumed the form of colonies. This feature at least they had in common. In one instance the micro-parasites were bacilli, in the other streptococci. The differences between them may not be of much moment as regards the pathology of the disease. It is well to bear in mind that the micro-organisms have only been detected in two cases. Mr. Cheyne himself is very cautious in drawing any further inferences, and properly suggests the examination of many other examples, not only of purpura, but of scurvy.

ROYAL COLLEGE OF PHYSICIANS.

AT a special meeting of the Royal College of Physicians on Thursday last, Sir Risdon Bennett was nominated to represent the College at the approaching tercentenary of the University of Edinburgh. The President stated that, in conjunction with the President of the Royal College of Surgeons, he had obtained an interview with the Secretary of State for the Home Department relative to the duties of the Public Prosecutor in medico-legal cases, and that the result of the interview was most satisfactory. The rest of the meeting, which was unusually prolonged, was occupied with "Secreta Collegii."

THE EGYPTIAN EXPEDITION.

WE understand that eight medical officers and fifty men of the Army Hospital Corps have been despatched to Egypt as an augmentation to the force employed in the expedition to Souakin. The medical officers have gone by the Brindisi route, and the men by the Peninsular and Oriental steamers. An ample reserve of hospital equipment and of medical and surgical stores has also been sent out. It is very satisfactory to find that the Director-General had fully anticipated all Sir J. Lister's recommendations, as stated by him at the Woolwich meeting, with regard to the nature and amount of the supplies necessary to carry out efficiently the antiseptic treatment of the wounded should any action take place with the force sent forward on field service.

THE CHEAP ANTISEPTIC.

THE experience at Breslau is in strict accord with that at the Paris Maternity, that corrosive sublimate is an extremely efficient antiseptic in the puerperal state. We may draw the attention of our readers to the remarks of Sir Joseph Lister, given at the meeting of the Woolwich Military Medical Society held last week, on the many conveniences of corrosive sublimate. Sattler has also employed a weak solution with great success in cases of "granular" conjunctivitis which is believed to be dependent on the presence of micro-organisms.

AT a meeting of the Council of the Poor-Law Medical Officers' Association, held at their rooms, 3, Bolt-court, on Feb. 19th, it was resolved that a memorial should be addressed to the President and Fellows of the Royal College of Physicians, the President and Council of the Royal College of Surgeons, and the Master and Wardens of the Society of Apothecaries, praying that they will severally memorialise Her Majesty's Government in favour of an amendment of the Poor-Law Medical Officers' Superannuation Act, whereby its present permissive clauses may be made compulsory.

A REPORT on the effect of heavy sizing in cotton weaving upon the health of the operatives was issued on the 16th inst. It states that the balance of evidence is in favour of harm resulting not to strong and vigorous constitutions, but to those who are weakly, or have tendencies to rheumatic or pulmonary disease, and recommends that processes by which large quantities of size can be incorporated with the warp without diffusion of dust or moisture should be generally applied, and that effective ventilation should be adopted.

A MEDICAL AND CHIRURGICAL SOCIETY has just been founded in Seville, Spain. The president is Dr. Domingo Ferreira.

WE call the attention of intending visitors to the Medical Congress to be held in Copenhagen in August next to an arrangement announced in another column, by which the Ocean Steam Yachting Company is stated to be prepared to receive guests on board the steam yacht *Ceylon* on specified terms. By this means visitors will be enabled to escape the discomfort of living in crowded hotels—a contingency to which they would be very liable to be exposed on such an occasion.

As another agency in the promotion of sanitary knowledge amongst the people we welcome the announcement of the formation of an Association in Hull for the purpose of diffusing information of the principles on which the health of individuals and of communities can be maintained. The Association has been formed by the exertions of Dr. Macmillan, Dr. King, Dr. Lunn, Canon McCormick, and other gentlemen, and we heartily wish it success.

MR. JUSTICE STEPHEN, who presided at the trial of Mr. Price, charged with unlawfully attempting to burn the body of his infant child, in charging the Grand Jury at the Glamorganshire assizes on the 12th inst., said that after full consideration he was of opinion that a person who burns instead of buries a dead body does not commit a criminal act unless he does it in such a manner as to amount to a public nuisance at common law.

TYPHOID FEVER is reported to be prevalent at Kendal, defective drainage being thought to be the source of the outbreak. The water of the town has been strongly condemned by the borough analyst, but it is not believed to be the cause of the epidemic. The town has a fever hospital, but in the present emergency this building has been found to be useless, owing to the inadequacy of its arrangements.

DR. SUTHERLAND REES PHILIPPS, late Medical Superintendent of Wonford House, Exeter, has been appointed Medical Superintendent of the Asylum for the Insane, erected by the late Mr. Holloway at Virginia Water. We understand that the asylum will be opened for the reception of patients next summer.

IT is intended to hold a conference of delegates from working men's clubs and others interested, at the Southwark Radical Club, on the 28th inst., to consider the recent action of the governors of Guy's Hospital in imposing a fee on those who receive the advantages of that institution.

MR. E. PAYSON WESTON has now completed four-fifths of his huge task. On Thursday the last fifty of four thousand miles were added to his score. Meanwhile his powers of endurance under the extraordinary exertion put forth appear likely to hold out to the end.

KOCH'S INQUIRIES INTO THE NATURE OF CHOLERA.[1]

OUR Berlin correspondent has favoured us with the following Fifth Report of the German Cholera Commission, which he correctly says is of such importance that it does not permit of abridgment. Dr. Koch writes from Calcutta, Jan. 7th:—

"As a sequel to my report of Dec. 16th last concerning the work of the Cholera Commission in Calcutta, I have the honour of sending to your Excellency the following account. The Commission has been gratified with the lively interest and active support given by the local and hospital authorities in this city. Nearly all fatal cases of cholera in which dissections were made in the city hospitals were thus available for our researches. Up to the present time the material has been collected from nine post-mortem examinations, as well as from eight living individuals, suffering from cholera. The cases following each other in almost equal intervals, the time was just sufficient for a thorough examination in all directions. Some cases, ending fatally after a short illness and uncomplicated with other morbid conditions, furnished the best material for examination, as post-mortems could be made soon after death. To these favourable conditions it is due that the Commissioners have been able to make essential progress in the advancement of the work entrusted to them. Microscopical examination in all cases confirmed the existence of the same bacilli in the cholera intestine, which had been found in Egypt. However, in my report of Sept. 17th I was obliged to leave it undetermined whether these bacilli do not belong, like so many other bacteria, to the regular parasites of the human intestine, which under the influence of the choleraic process are enabled to penetrate within the mucous membrane. At that time sufficiently marked characters were still lacking for distinguishing these bacilli from other intestinal bacilli of a very similar shape. But this want has now fortunately been supplied; for with the aid of the methods pursued by the Board of Health, which have also proved most reliable on this occasion, we succeeded in isolating the bacilli from the intestinal contents of the least complicated cases of cholera and in cultivating them in pure cultures. A minute observation of the bacilli in these pure cultures has led to the discovery of some very characteristic peculiarities as to their shape and mode of growth in gelatine, by which we have been enabled to distinguish them with certainty from other bacilli. We had now the means for definitely deciding the question whether these bacilli belong to the ordinary inhabitants of the intestine, or whether they exclusively occurred in the intestine of individuals suffering from cholera. For this purpose, again by aid of the gelatine cultures, we endeavoured to demonstrate the bacilli in the choleraic discharges and in the intestinal contents after death from cholera, in which task we succeeded in all the cases examined in this city. On the other hand, a similar examination of the intestinal contents in other diseases gave evidence that the bacilli met with in cases of cholera were invariably absent. Thus far the research has been carried out on the bodies of six cases of pneumonia, dysentery, phthisis, and kidney disease. Nor has it been possible to find bacilli similar to the cholera bacilli anywhere in the intestinal contents of animals and in other substances abounding with bacteria. If these observations should be confirmed on further investigation, a very important result will have been gained. Indeed, if these bacilli, endowed with specific properties, belong quite exclusively to the cholera process, the etiological connexion between the prevalence of the same and the cholera would barely admit of doubt, even if the reproduction of the disease in living animals should fail. But in this latter respect things seem to be in our favour, since several experiments recently made on animals have given results which allow us to hope for further success. Besides these experiments, the Commission has been occupied with getting the best possible information about the behaviour of cholera in the city of Calcutta. In cities outside of India, which are only exposed at long intervals to cholera infection, it is impossible to make out with certainty the influence exerted on this disease by sanitary improvements, such as the supply of good drinking water, drainage of the soil, &c., since it must always be a matter of chance whether such a locality be once or often the seat of the disease. But in cities like Calcutta, which every year have a high mortality from cholera, each measure that operates successfully against the disease must be followed by a more or less remarkable and lasting decrease in the mortality. As a matter of fact, in Calcutta the cholera has decreased in a striking manner since 1870. Before this year the annual average mortality was 10·1 per 1000 inhabitants. Since 1870 it has fallen to 3 per 1000, or more than threefold. This fact, deserving the utmost attention, must carry indications on the most successful means of attacking the disease. The physicians of this city nearly all agree in the opinion that the decrease of the cholera is solely owing to the introduction of a drinking water supply. It will be an important business for the commissioners, by personal study and inspection, to arrive at an unbiased judgment on this point.

[1] Fifth report of Dr. Koch, Privy Councillor, chief of the German Scientific Commission for the Investigation of Cholera.

For this end they have visited the waterworks as well as the sewage arrangements of Calcutta. A number of samples of river water, before and after filtration, in the waterworks at Puttah have also been examined, and the drinking water supplied to the city has been found of excellent quality.

"I learn from the medical journals that the French commissioners sent to Egypt to investigate cholera declare in their report that they have gained other results than those communicated by myself, having found organisms in the blood alleged to be peculiar to cholera. Since this might give rise to the impression that the researches of the German commission were going in a wrong direction, I think it necessary to state to your Excellency my views upon the above statements. In the blood of the healthy man, besides red and white blood-corpuscles, there exist, in varying number, small, roundish, pale elements, the so-called blood-plates (Blutplättchen). In some febrile diseases—typhus fever and pneumonia, for instance—these elements are greatly multiplied, and, in consequence of their resemblance to micro-organisms, have been repeatedly taken for bacteria. In the blood of individuals suffering from cholera, and of those who die from this disease, they are almost always increased, as we were able to ascertain in the cases of cholera examined by us. This fact, after all, is not a new one, having been already mentioned by former investigators. Dr. D. Cunningham, for instance, as early as 1872, in his 'Microscopical and Physiological Researches into the Nature of the Agents producing Cholera,' has given a very good figure of these formed elements of the choleraic blood. Now, since even the most approved methods of examination do not permit of the recognition in the cholera-blood of any other elements similar to bacteria, and since the description given by the French commission corresponds in every way with the above-mentioned blood-plates, I cannot but argue that the French commissioners, falling into the same error as previous investigators, have mistaken the 'Blutplättchen' for specific organisms. Any etiological connexion with cholera cannot be ascribed to these blood-plates, because, as I already mentioned, these elements are also met with in the blood of healthy individuals and others suffering from other diseases."

Since the publication of the above, a telegram from Calcutta announces that Drs. Koch, Fischer, and Gaffky have discovered the cholera-bacillus in a water tank.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

AN extraordinary Court of Directors of the Society was held on Jan. 23rd, to receive the resignation of Sir George Burrows, Bart., President, Sir Henry Pitman, Vice-President, in the chair. Mr. Charles Hawkins, Vice-President, moved, and Dr. Quain, Treasurer, seconded, the following resolution:—"The Court of Directors in accepting the resignation of Sir George Burrows as President of the Society desire to place on record its high appreciation and grateful sense of the valuable services he has rendered in this capacity. The constant watchful and benevolent interest which for seventeen years as President he has taken in the affairs of the Society has in a great measure contributed to its successful management and its present prosperous condition, and this Court feels confident that Sir George Burrows on retiring from the office of President will carry with him the affectionate regard of the entire Court of Directors, and the esteem and gratitude of every member of the Society." Mr. Charles Hawkins moved, and Dr. Quain seconded, "That Sir James Paget, Bart., be nominated as President in place of Sir George Burrows, Bart., resigned, and that an extraordinary general meeting be called for Friday, Feb. 8th."

In accordance with the above resolution an extraordinary general meeting of the Society was held on Friday, Feb. 8th, Dr. Harvey Owen, Vice-President, in the chair, and Sir James Paget, Bart., was unanimously elected President of the Society. The members present adopted the resolution carried at the extraordinary Court of Directors on the resignation of Sir George Burrrows, Bart., and requested the secretary to forward a copy of it to the late President.

VITAL STATISTICS

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5814 births and 3367 deaths were registered during the week ending the 16th inst. The annual death-rate in these towns, which had been as low as 20·3, 20·5, and 20·6 per 1000 in the three preceding weeks, declined last week to 20·1. During the first seven weeks of the current quarter the death-rate in these towns did not average more than 20·8 per 1000, whereas in the corresponding periods of the four years 1880–83, the rates ranged from 28·1 to 22·7. The lowest rates in these towns last week were 11·8 in Portsmouth, 14·0 in Wolverhampton, 15·1 in Cardiff, and 16·4 in Halifax. The rates in the other towns ranged upwards to 23·4 in Newcastle-upon-Tyne, 24·6 in Preston, 24·9 in Liverpool, and 25·8 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 419 and 399 in the two previous weeks, were 415 last week, and equal to an annual death-rate of 2·7 per 1000; they included 120 from whooping-cough, 79 from scarlet fever, 77 from measles, 44 from diarrhœa, 40 from "fever" (principally enteric), 39 from diphtheria, and 16 from small-pox. No death from any of these zymotic diseases was registered last week in Wolverhampton, whereas they caused the highest death-rates in Leeds, Sunderland, and Newcastle-upon-Tyne. The greatest mortality from whooping-cough last week occurred in Bolton and Huddersfield; from scarlet fever in Leeds, Sheffield, and Newcastle-upon-Tyne; and from measles in Derby, Salford, and Oldham. The 39 deaths from diphtheria in the twenty-eight towns exceeded the number in recent weeks, and included 26 in London, 5 in Hull, and 2 both in Liverpool and in Leeds. The 16 fatal cases of small-pox showed a decline of 5 from the number in the previous week; 10 occurred in Sunderland (exceeding the number in any recent week), 3 in Birmingham, 2 in London, and 1 in Liverpool. The number of small-pox patients in the metropolitan asylum hospitals, which had been 110 and 97 on the two preceding Saturdays, rose to 118 at the end of last week; 28 new cases were admitted to these hospitals during the week, against 28 and 7 in the two previous weeks. The Highgate Small-pox Hospital contained 6 patients on Saturday last, 1 new case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 367 and 347 in the two preceding weeks, further declined to 334 last week, and were no fewer than 241 below the corrected average. The causes of 80, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Brighton, Leicester, Sunderland, Derby, and Plymouth. The proportions of uncertified deaths were largest in Wolverhampton, Bristol, Preston, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 22·4 and 24·7 per 1000 in the two previous weeks, declined to 20·9 in the week ending the 16th inst.; this rate exceeded by 0·8 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 14·1 and 15·0 in Leith and Aberdeen, to 20·4 in Dundee and 25·3 in Glasgow. The deaths in the eight towns included 72 which were referred to the principal zymotic diseases, showing a decline of 27 from the number returned in the previous week; 21 resulted from whooping-cough, 14 from diphtheria, 14 from diarrhœa, 11 from measles, 8 from scarlet fever, 4 from "fever," and not one from small-pox. These 72 deaths were equal to an annual rate of 3·0 per 1000, which was 0·5 above the mean rate from the same diseases in the large English towns. The rates from these diseases in the Scotch towns ranged last week from 0·7 in Greenock, to 3·6 in Glasgow, 3·9 in Leith, and 5·4 in Paisley. The 21 deaths from whooping-cough were within 2 of the number in the previous week, and included 15 in Glasgow and 3 in Edinburgh. The 14 fatal cases of diphtheria showed a decline of 9 from those in the previous week; 8 occurred in Glasgow and 2 in Dundee. The 11 deaths from measles included 4 in Edinburgh, 3 in Glasgow, and 3 in Paisley; while of the 8 fatal cases of scarlet fever, 4 occurred in Glasgow and 3 in Edinburgh. The 4 deaths

referred to "fever" were fewer than those in any recent week, 2 being returned in Aberdeen. The 14 deaths attributed to diarrhœal diseases included 5 in Glasgow and 3 in Dundee. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 111 and 109 in the two preceding weeks, were 113 last week. The causes of 71, or 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 29·7 and 30·0 per 1000 in the two preceding weeks, further rose to 31·4 in the week ending the 16th inst. During the first seven weeks of the current quarter the death-rate in the city averaged no less than 28·3 per 1000 whereas it did not exceed 20·2 in London and 20·3 in Edinburgh. The 211 deaths in Dublin last week showed a further increase of 9 upon the numbers returned in recent weeks; they included 4 which were referred to scarlet fever, 3 to "fever" (including typhus, enteric, and simple continued), 2 to whooping-cough, 2 to diarrhœa, and not one either to small-pox, measles, or diphtheria. Thus 11 deaths resulted from these principal zymotic diseases, against 14 and 17 in the two preceding weeks; they were equal to an annual rate of 1·6 per 1000, the rate from the same diseases being 2·7 both in London and in Edinburgh. It is evident, therefore, that the excess of deaths in Dublin last week was not due to zymotic fatality. The 3 deaths referred to "fever" in Dublin showed a decline of 3 from the number in each of the two previous weeks. The 4 fatal cases of scarlet fever corresponded with the number in the previous week. Four deaths were referred to different forms of violence. The deaths both of infants and of elderly persons showed a further increase upon recent weekly numbers. The causes of 48, or more than 21 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Surgeon T. R. Morse, A.M.D., has been ordered to proceed to Egypt at once to join the expeditionary force at Suakin; Surgeon Laffin, A.M.D., has been ordered to proceed to Egypt in command of the stretcher bearer column of the Army Hospital Corps.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major William Elgee has retired upon temporary half-pay.

ADMIRALTY.—Fleet Surgeon John Guilton Clarke has been placed on the retired list of his rank.—The following appointments have been made: Surgeon George William Armstrong, to the *Albacore;* Surgeon John Bellhouse B. Triggs, to the *Express;* Staff Surgeon Matthew Trevan, to the *Boscawen*, vice John G. Clarke.

MILITIA MEDICAL DEPARTMENT.—Surgeon-Major Williams, M.D., 6th Battalion, the King's Royal Rifle Corps, resigns his commission; also is permitted to retain his rank, and to wear the prescribed uniform on his retirement.

Correspondence.

"Audi alteram partem."

THE PAY SYSTEM AT GUY'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—Your comments on the 9th inst. on the reorganisation of medical relief at this hospital reminds me that notwithstanding the length of my previous letter I had far from exhausted the reasons why such a departure from old-established custom had been considered necessary, and with your permission I crave the privilege of trespassing a little further on your space. Is it not possible, nay, highly probable, that a too literal acceptation of the *dare quam accipere* maxim, like a similar interpretation of the injunction to expose the left side of your face to your neighbour should he smite you on the right, may be carried too far, and that charity indiscriminately bestowed on the "without money and without price" principle may do an incalculable amount of harm? This view at all events meets with general acceptance by our best authorities on medical relief, whether it is administered by voluntary agencies or through the medium of the laws affecting the poor. At the recent Poor-law Conference in Exeter Hall there was a consensus of opinion as to the pauperising effect of gratuitous medical aid, and it has long been acknowledged that any system which tends to impair their self-reliance and self-respect is fraught with the greatest danger to the poor themselves. Mr. Pell, M.P., under whose vigorous presidency the meeting referred to was held, looks upon charity rendered in this fashion as the side door by which people become paupers, and those among us who have had long experience of hospital life know full well that by a large proportion of the applicants for admission the hospital is regarded as a half-way house on the road to the parish infirmary or the workhouse. Of course, the object of the hospital in the first instance is to help the industrious poor and to save them from becoming chargeable to the rates; but without substituting political economy for humanity, it is surely possible in the cause of charity itself to accept from the participants some remunerative equivalent, however small, not only that they may retain some sense of independence, but that the same benefit may be extended to others in equal if not in greater need. It is only by following a tentative course on these lines that a thorough distinction can be drawn between voluntary and State help. The Local Government has at last made ample provision throughout the metropolitan area for sickness of every kind from which the poor may suffer, not only by the erection of a score or more infirmaries and sick asylums, the numerous sanitary arrangements of which may well excite the envy of the older hospitals, but in the establishment of district dispensaries in every union in London, where physic and advice may be had gratuitously. It is probably as much from a knowledge of this provision as from the irrepressible fault-finding of the well-meaning gentlemen who are endeavouring to constitute themselves a Hospitals Association that the charitable public are not so keenly alive to the importance of supporting the voluntary hospitals as they were in olden time. The tendency of modern philanthropy is decidedly in favour of making the work more and more the business of the State, and the ratepaying public submit to the yoke without a murmur. When Guy built his hospital in the beginning of the last century there was no provision of any kind for the sick poor of London except that afforded by the two older endowments, St. Bartholomew's and St. Thomas's. Eighty years afterwards, or at the beginning of the present century, the population in Southwark, Lambeth, and their suburbs, computed from such data as we have been able to obtain, did not exceed 200,000, while at the last census, within the southern metropolitan boundary it was found to be considerably over a million and a half. During this long interval no voluntary attempt has ever been made in the district to supplement the ordinary work of the two hospitals which have steadily pursued their course in spite of many reverses of fortune and much adverse criticism. It has only been by a long system of judicious management, little known to the general public, that from small beginnings the endowed hospitals have acquired their present position and not inconsiderable revenues. In the pages of a medical journal, too, we can point with no little pride to the fact that at a time when medical education was little better than a scholastic puzzle, to be solved by some learned pundits at the universities, it found a cradle in the endowed hospitals, where it has been diligently cherished ever since, and thus saved the State the responsibility of providing facilities for students acquiring a practical knowledge of disease, which, under other conditions, it must inevitable have had to accept. But apart from this digression, I should like to make it perfectly clear that the object aimed at by the governors in receiving a few paying patients into the general wards of the hospital is simply to prevent the necessity of further reducing the accommodation for free patients, and thus promoting the *dare quam accipere* principle by the aid of friends and employers who would resent the notion of their relatives or dependants becoming altogether objects of charity. With regard to the innovation in the out-patient department, at which you express so much virtuous indignation, I have not been able to discover among gentlemen practising in the vicinity of the hospital, nor from others, that they have anything to fear from the competitive rivalry. Is it not more reasonable to assume that the unrestricted and gratuitous issue of drugs and medicaments to a flood of out-patients is more to be dreaded by the general practitioner than a charge of threepence for a pint of cod-liver oil, or for a week's supply of quinine?

Allow me, in conclusion, to express my regret that THE LANCET, which is generally abreast of its contemporaries in furthering objects which tend to advance the best interests of the industrious poor, should view with discouragement these attempts to remodel the much abused system of hospital relief, which otherwise have met with very general approval, and, curiously enough, not least by those whom they more immediately concern.

I am, Sir, yours, &c.,

Guy's Hospital, Feb. 12th, 1884. J. C. STEELE, M.D.

*** Notwithstanding Dr. Stee'e's sneer at our virtuous indignation, we still feel justified in maintaining that our endowed hospitals were meant for the gratuitous relief of the poor; that there are poor enough to make such gratuitous relief a prudent and a kind thing; that the offer of all the drugs in Guy's Hospital to out-patients on the condition of paying threepence is more demoralising to the poor and injurious to the profession than the gratuitous relief of fit cases would be. To a working man the problem of living in London is still a hard one. Witness all the bitter cries that we hear from day to day and in every place, from Parliament to the Boards of Guardians. The feeling between the rich and the poor is not so satisfactory that it can dispense with the sweetening influences which Christianity provides in hospitals and in nursing associations. Guy never contemplated that his representatives should part with their own discretion as to the fit recipients of his bounty. And we repeat that if the Charity Organisation Society is to be the almoner of Guy's charity, it should direct its inquisition upon the patients who glibly pay their threepence, and not upon those who do not feel able to comply with the undignified exaction. Dr. Steele takes much credit to Guy's Hospital for its medical educational work. We cheerfully admit that it has been good; but we do not see the bearing of this in favour of his argument. The poor patients have been willing factors in the problem of medical education, and are the more entitled to all that medicine can do for them. Moreover, the hospital has been well paid by its students for their educational privileges. Dr. Steele has not been able to hear any adverse criticism of the new departure at Guy's from medical men of the neighbourhood. We direct his attention to the following letter.—ED. L.

To the Editor of THE LANCET.

SIR,—The thanks of the profession are due to you for your excellent article on the above subject. Now that the portals of Guy's Hospitals are open for patients on payment of £1 per week for bed, board, firing, service, and medical and surgical attendance, and that they can have the opinion and treatment of those eminent members of the profession who constitute the staff of Guy's Hospital, together with the necessary medicines, for the modest charge of threepence per week as out-patients, it would be most interesting to know what is to become of the more humble members of our profession who have not yet attained to such a pinnacle of eminence as to command similar fees?

Not many days ago I heard a medical man in extensive practice propose opening a large dispensary in South London with the following sign-board:—"On the Guy's Hospital principle, medical attendance and medicine, threepence per week!" And so far as out-patients are concerned he clearly saw his way to compete with Guy's Hospital. His chief difficulty, however, lay in his inability to provide the same accommodation for in-patients. "But then, you see," he said, "I could do that if I only had the money which Guy left for the poor and needy." It is a fact patent to all who are practising on the south side of the Thames that the poor do not now regard Guy's Hospital as a charitable institution, for, say they, "Do we not now have to pay for our medicines?" Others go further, and say: "It is much nicer to pay, as you are not beholden in any way." It would be interesting to know who are the patients who are thus contributing to the exchequer of the hospital which is no longer Guy's. Innumerable complaints constantly reach my ears, not from the profession, be it known, but from the public, of the keen competition now going on in South London, and of the disgraceful manner in which circulars and cards are being left at the houses of respectable members of society, with offers, "on the Guy's principle," of attending them at threepence per week, thus degrading and debasing our noble profession to a condition more deplorable than the meanest trade under the sun. The staff of Guy's Hospital have, by tacitly giving their sanction to this commercial scheme, surely no intention of entering into competition with their former pupils for the sake of mere reputation by such questionable means.

In conclusion, I may add that I write wholly and solely in defence of that profession to which I have the honour to belong, as I am not in any way affected pecuniarily by the disgraceful competition which is now engendered by the recent action of what once was one of our noblest charitable institutions. I remain, Sir, your obedient servant,

Kennington-park, S.E., Feb. 13th, 1884. GEORGE FOWLER.

FUNERAL OF THE LATE LORD HERTFORD.

To the Editor of THE LANCET.

SIR,—We are very much surprised you did not take the trouble to ascertain the correctness of the newspaper report of the funeral of the late Lord Hertford before making such remarks as you did in last week's LANCET. The position we took in it was that which professional men, when attending funerals in their professional capacity, most usually, if not invariably, occupy—viz., in front of the hearse—this custom was adhered to in the present case. As to the statement that we walked with the servants, there is no truth in it whatever. The only notice we care to take of your other remarks is to say that they betray an equal ignorance of facts. We must request that this letter may receive insertion in your next issue. We remain, Sir, yours truly,

T. L. SMITH. C. E. HOBBES.
T. H. SMITH. G. H. FOSBROKE, Junior.

Alcester, Feb. 14th, 1884.

*** As we stated last week, our attention was called to the report in *The Times* newspaper. Nothing turned on its accuracy. It was simply the impression produced and embodied in the report, and commented upon by our correspondent as a member of the profession, which formed the subject of our remarks. If the gentlemen who sign this letter will take the trouble to read the annotation again they will see the matter in this light. It was no part of our business, and altogether beside our immediate purpose, to inquire if the report was true.—ED. L.

THE LIVERPOOL CHAIR OF MEDICINE.

To the Editor of THE LANCET.

SIR,—From the remarks of your Liverpool correspondent in last week's journal with regard to my resignation of the Chair of Medicine here, it might be inferred that I had filled that chair during the time that the School of Medicine has been connected with the New University College, but not previously. The fact, however, is that I have held the chair since 1872, long before the College was founded. Your correspondent is slightly in error with reference to former appointments held by me. When first connected with the School I lectured on anatomy and physiology, subsequently on physiology, and lastly on medicine.

I am, Sir, your obedient servant,

Liverpool, Feb. 18th, 1884. A. T. H. WATERS.

ONE HUNDRED CONSECUTIVE CASES OF SMALL-POX.

To the Editor of THE LANCET.

SIR,—At present Sunderland is under a pretty sharp epidemic of small-pox. The attack must be said to be peculiar in some respects—first, because of the mildness of the malady, many of the patients walking about until they come under medical observation, when this is forbidden, and they are isolated as far as possible. The cases present other peculiarities besides being of a mild type. There is also the absence of vomiting in a good many

of the cases where the eruption is pretty plentiful; and in the great majority of cases, although the eruption has been abundant and the patient may have been blind for a day or two, when the scabs fall off there is no pitting left, but rather a risen surface, which in about four or five weeks appears to atrophy and leave the surface smooth, and it is with difficulty one can trace the marks. Of the one hundred consecutive cases none have been fatal. Out of that number four were unvaccinated, whose ages were from nine to eighteen years; one of these unvaccinated cases was rather severe and of a confluent type, two were of the ordinary kind, and one rather slight. As the epidemic seems pretty general over the country, can anyone inform me if the absence of pitting is noticeable in other parts of the country? I am, Sir, yours respectfully,

Sunderland, Feb. 1884. JOHN RANKINE, F.R.C.P.ED.

"OVERWORK AMONG PUPIL TEACHERS."

To the Editor of THE LANCET.

SIR,—As a schoolmaster of some years' experience, allow me to endorse the statements made by Dr. Williamson in your last issue with respect to the overwork of pupil teachers. Affecting as it does so large a body of young persons, the subject requires thorough investigation. The work of my own pupil teachers was daily as follows:—6.45 to 8 A.M., private lessons with myself; 9 to 12.15 A.M., and 2 to 4.30 P.M., school teaching; 6 to 8 P.M., preparation of lessons at home—showing nine hours' brain work and worry for five consecutive days per week. Add to this Scripture lessons and drawing classes on Saturday, and we have at least forty-eight hours of hard and close application in the six working days. This is certainly too much in-door mental tax and anxiety for young persons of such a critical age. The result is one of two things, either a breakdown of health in the diligent conscientious worker or a "scamping" of private studies by the thoughtless one—both undesirable.

As to the remedy for the evil, Dr. Williamson's suggestions for a strict detailed examination of teacher and school premises by the medical officer of health, and the employment of a supernumerary teacher to relieve the others in turn, are excellent. For the certificates now filed with "Form IX." are often worthless; and a weekly half-holiday away from the drudgery of teaching would be beneficial to mind and body. The object aimed at must be to procure healthy as well as intelligent candidates, and then to give them such an amount of work and such surroundings as shall not prevent their healthy mental and physical development. But the subject is surrounded with difficulties, that of expense not being the least. Probably, if Mr. Mundella perceived that the younger teachers would be benefited thereby, he might look with more favour on Mr. Hubbard's proposal to make an increased grant from the Imperial Exchequer to all schools.

In the meantime our thanks are due to Dr. Williamson for so ably starting the discussion in your columns; and I hope that some of the medical authorities of our training colleges will give us their experience as to the physical condition of the candidates for admission, the number rejected, and the number who break down wholly or partially in their two years' training. I am, Sir, yours obediently,

Feb. 19th, 1884. SYMPATHY.

BIRMINGHAM.

(From our own Correspondent.)

THE GENERAL HOSPITAL.

THE annual meeting of the governors of this charity was held on the 20th inst., under the presidency of Lord Lyttelton. The report showed a satisfactory state of progress. The number of patients treated in the year was 38,000. Of the total number of in-patients, 3654, no less than 2822 were admitted without tickets, being urgent cases and accidents; whilst of the out-patients, of the total number of 34,739, no less than 20,686 came under this head: thus about four-fifths of the work done may be regarded as that of a free hospital. The endowment fund of the new Suburban Hospital amounted to £25,000, in addition to about £330 promised in annual subscriptions—a response, which, though as yet inadequate to the requirements, offering a noble testimony to the zeal with which the project has been taken up by the public.

THE LYING-IN CHARITY.

The annual meeting of subscribers was held on the 6th inst., an abstract of which has appeared in THE LANCET. The work is done by four midwives, each having a district, with an honorary surgeon attached, who is called in to cases of emergency. The result of this is a remarkably low mortality, and is a provision which the deserving poor ought to appreciate. It affords a strong contrast to the conduct of a case for which an unqualified practitioner was tried at the recent Warwick Assizes. Mr. Justice Denman, in pronouncing a sentence of three months' imprisonment, made some comments of a practical and useful kind. He remarked that no man should do this kind of work without having at his fingers' ends all those rules which were common and were known for this branch of service, and that it was of immense importance that the public should be protected from culpable ignorance as well as culpable negligence. In these judicial axioms we cannot but feel full concurrence, as well in the interests of the profession as in those of humanity at large

HEALING BY FAITH.

A remarkable instance of this kind is reported from Birchmoor, where a girl, who had been suffering from paralysis of the neck for twenty months, and unable to raise her head from the pillow, was suddenly healed, sat up in bed without any assistance, and has since been dressed and able to walk about. This instantaneous effect was produced during the prayers of some Blue-ribbon friends, and has created a sensation among the lovers of the marvellous in the district where the patient resides. It is difficult to convince the unlearned that supernatural agencies are not necessary to bring about results of this character, and that more wonderful instances of the influence of a superior will, or appeals to the senses of highly excitable or sensitive invalids, have been recorded as testimony of scientific laws now well recognised and known. Still, it is not only the sick, but others who are apparently sound, who often suffer themselves to be the victims of a superstitious ignorance which they will not allow can be accounted for by known agencies.

MANCHESTER.

(From our own Correspondent.)

HOSPITAL IMPROVEMENTS.

IN the hospital world much activity has been displayed of late, and rebuilding, enlargement, or extension appears to be the order of the day. The Eye Hospital (the annual meeting of which was recently held) has extended its work so much as to make increased accommodation imperative, and a new hospital is now being commenced, at a computed outlay of £20,000. The contract for the building alone is £9850. The new building will contain 100 beds. Towards the £20,000 only about £9000 have as yet been subscribed.—The Hospital for Consumption is to extend its sphere of operations, and the committee have purchased a house in one of the nicest and most healthy of the Manchester outlying districts—viz., Bowdon,—which it is expected will shortly be adapted and ready for its new occupants. Upwards of £12,000 are required for this, and towards it about £5000 have been obtained.—At the annual meeting of St. Mary's Hospital for Women, the chairman alluded to the necessity at no distant period of taking into consideration what should be done to meet their increasing needs, and stated that he hoped before long they would have a new and more commodious and complete building than that now occupied, although the latter has been built only some thirty-five years.—At Pendlebury, also, the Children's Hospital requires help to build increased accommodation for their nurses, in order that a large ward now used for them may be utilised for its proper and intended purpose.—The Southern Hospital has lately undergone considerable structural alterations, which will increase both its accommodation and its efficiency.

The meeting of the supporters of the proposed second Dental Hospital here turned out to be a rather stormy affair,

and those who have at some pains and care established already the Manchester Dental Hospital so vigorously opposed the new scheme that the resolution intended to be proposed and carried was never put to the meeting, but, instead, arrangements were made for the supporters of the two hospitals to meet and confer as to the possibility of something being done by which the two institutions could be blended, and it appears likely from a recent meeting that this will be effected

MEDICAL SOCIETIES.

At the annual meeting of the Medical Society a very interesting paper was read by Dr. Leech on the rise and progress of the Society, which has now completed its fiftieth year of existence. Only one of the original members now appears on its roll—viz., the venerable Dr. Noble. During its career it has gone through many vicissitudes, and suffered some almost hairbreadth escapes from total destruction; but it at the present time is apparently in the enjoyment of the most robust health, numerically, financially, and scientifically. It is housed in sumptuous quarters, and possesses a library of 40,000 volumes.—At the last meeting of the Medico-Ethical Society a rather burning question came up for discussion—the desirability or advisability of allowing ladies to be eligible for membership who were in the possession of a leg qualification to practise. An emphatic negative was the result of the voting.—On the same evening a meeting of a different character was taking place. The Edinburgh graduates were dining together, as is their annual custom; but especial interest was given to this year's gathering by the presence of Sir Joseph Lister as the guest of the evening. Dr. Thorburn occupied the chair, and alluded in graceful terms to the student days of Sir Joseph Lister, when they were at Edinburgh together. A number of the Owens College staff accepted invitations to be present, and a very pleasant and social evening was spent.—At a meeting of the Microscopical Society on Tuesday last, there was a very fine display of sections of rodent ulcer. Mr. Paul of Liverpool read a paper on the subject, and several members of the Society contributed specimens relating thereto.

SCOTTISH NOTES.

(From our own Correspondent.)

FISHERIES IMPROVEMENT.

THE Council of the Scottish Fisheries Improvement Association, a society recently increased by the incorporation of the Rivers Pollution Association, held their monthly meeting a few days ago. A letter was read from Mr. Harvie-Brown, and the following paragraphs were of such scientific importance that they were ordered to be engrossed in the minutes:—"The subject of colouration of flesh of trout is a much more intricate one than at first appears. I know of trout holding largely developed spawn in June and July in a loch in Sutherland, whose flesh is not pink only, but bright red, like a salmon's, and yet are not fit to be eaten. I know, also, in a limestone burn the very finest trout, which on the table are perfectly white in the flesh, whatever size they grow to; but in another limestone burn from the same sources, or nearly so, the trout are quite different in appearance externally, but equally white in flesh and equally delicious for eating. I put a ¼ lb. trout, along with others, into a previously barren loch. In two years some of these trout attained to 4¼ lb. weight, developed huge fins and square or rounded tails, lost all spots, took on a coat of dark slime, grew huge teeth, and became *feroces* in that short time. The common burn trout, taken from a very high rocky burn up in the hills, in two years became indistinguishable from *Salmo ferox*. The first year they grew to about 1 lb. or 1½ lb., took on a bright silvery sheen of scales, were deep and high shouldered, lusty and powerful, more resembling Lochleven trout than any others. This was when their feeding and condition was at its best; but as food decreased, and *they* rapidly increased in number, spawning in innumerable quantities, and with no enemies, the larger fish began to prey on the smaller, grew big teeth, swam deep and lost colour, grew large fins and a big head, and became *Salmo ferox* so-called. In two years more the food supply became exhausted, and now the chain of lochs holds nothing but huge, lanky kelty-looking fish, and swarms of diminutive 'black nebe,' neither of the sorts deserving of the angler's notice. The first year they were splendid fish—rich and fat. Now they are dry and tasteless."

PERTH INFIRMARY.

At the annual meeting of subscribers to this institution, held on the 4th inst., the directors' and medical officers' reports were read, the latter by Dr. Graham. It appeared that there was a decrease of patients in each of the departments during the past year, the total being 1039, against 1290 in 1882. The in-door patients numbered 451, and it is gratifying to state that the decrease of forty-two here observed is more than accounted for by the small number of typhoid fever cases requiring treatment during the past exceptionally healthy year. The number of severe accidents treated, sixty-two, was larger than usual. It may be noticed that the directors here express gratification at the small number of patients treated, just as we every day read of the pleasure which directors elsewhere feel at the constantly increasing numbers who avail themselves of charity. There is surely much cant on one side or the other; but as it is not usual to congratulate ourselves upon the increasing numbers of paupers in the country, it is probable that the Perth directors are right, though in a very small minority. During the year the drainage and ventilation of the house have been improved at considerable cost. The directors regret a diminution in the ordinary revenue of about £81, and an excess of £160 in the ordinary expenditure over ordinary income, but with a capital of over £20,000, and an income from legacies, &c., of £1500, the institution may be congratulated upon its excellent financial position. Dr. Stirling's resignation after sixteen years' service as visiting surgeon was intimated, his valuable services fitly recorded, and he has since been appointed an honorary consulting surgeon. Dr. Graham, who has ably served the institution for five years as junior surgeon, takes Dr. Stirling's place in the wards, and by ten votes to three for his opponent Dr. Calder has been elected a visiting surgeon to complete the staff.

LEITH HOSPITAL.

The annual meeting of subscribers to this charity was held a few days ago, when the report was read. There was a decrease in the number of patients treated, 586, but this was largely due to a diminution of fever cases. Against this we have the remarkable increase of nearly 2000 cases in the out-door department; and when it is remembered that this is but an evidence of what is going on in Edinburgh, there seems abundant reason for the grumbling on the part of practitioners which recently found vent in the daily press. The ordinary income did more than meet the expenditure.

ARBROATH MUSEUM.

A ship captain recently arrived from Callao has just presented to the Arbroath Museum a mummy which had been discovered by some workmen while digging at the site of an ancient burying ground in Peru. The mummy, which is in an excellent state of preservation, is in a sitting position, and appears to be the remains of a full-grown female. The robe in which the body is wrapped is well preserved. Several other bodies were found near the same spot, and a large number of articles for domestic use were also dug up.

IRELAND.

(From our own Correspondent.)

THE MEDICAL ACT AMENDMENT BILL.

A MEETING of the Fellows of the Royal College of Surgeons in Ireland was held last week in order to consider the provisions of the Medical Act Amendment Bill, and its probable effect on the College should it become law. Dr. Malony proposed the following resolution:—"That this meeting approves, and will gladly support, a well-considered measure of reform calculated to remove such defects as have been proved to exist in the constitution of the medical profession; but at the same time the Fellows here assembled desire to express their conviction that it would be injurious to the public welfare and an unjustifiable employment of State authority to strip of their privileges institutions which can be shown to be using them both well and wisely." This was seconded by Mr. Edward Hamilton, who said that they were in favour of reform, but were opposed to levelling

downwards and to confiscation. Dr. Jacob moved as an amendment that the following words be substituted for those following the word "profession" in the resolution:—"That this College approves of the course pursued by this College as to the Medical Acts Amendment Bill of last session, and remits it to the Council to take such steps with reference to Medical Bills that may be introduced as may be necessary to protect the interests of the College." One reason why he asked the College not to recede from its former position of toleration of the Bill, was that it would make itself ridiculous before all licensing bodies and before the public by reversing the policy of both the College and the Council of the College since 1878. He took, he said, the most emphatic and complete exception to the predictions of those who were hostile to the Bill. It was not in the power of that or any other licensing body to stop the Bill, and were they to throw it over in favour of the Huxley dogma, which was regarded by the Government as a direct opposition to reform. Dr. Kidd, who spoke in favour of the resolution, said that the Bill would deprive them of the power of granting licences and holding final examinations, while all they would get in return was the election every five years of five members to the general Board. The amendment having been put and lost, Mr. Corley moved another amendment, to the effect that while disapproving of certain clauses in the Bill, legislative interference was absolutely necessary. The original resolution was, however, ultimately carried by a majority of 31 to 7. Two other resolutions of the same tenour were also adopted.

HYDROPHOBIA FROM THE BITE OF A CAT.

A boy, aged twelve, died last week from hydrophobia at Randalstown. Six weeks since a cat bit him in the thumb, severely lacerating the part, and the wounds appeared to improve until about a week since, when medical aid was obtained. All treatment, however, was useless, and death supervened from the effects of the injuries inflicted.

A CENTENARIAN MIDWIFE.

A woman named Margaret Barry died recently at Kellavullen, county Cork, at the advanced age of 100 years. A remarkable and probably unique circumstance connected with this woman was that she followed the calling of a midwife until immediately before her death.

CORK WORKHOUSE.

The committee recently appointed to inquire into the internal management of the institution have in their report, on the medical supervision of the hospital, stated that it appears not be a part of the duty of any of the medical staff to visit the hospital during the night, unless specially summoned by the nurse in charge. The committee are of opinion that this arrangement is objectionable, and that it should be part of the duties of the resident medical officer to visit the hospital at least once every night, not earlier than 10 P.M.; that his attention should be specially called to any serious case by the nurse in charge; and that where the resident medical officer thus visiting at night finds it necessary to prescribe for a patient he shall again visit the patient on the following day, in company with the visiting medical officer to whom the case belongs, and shall consult with him and receive his instructions as to the future treatment of the patient.

Dublin, Feb. 19th.

PARIS.

(From our Paris Correspondent.)

LESIONS OF THE EYE DUE TO RHEUMATISM.

PROF. PANAS lately delivered a very interesting lecture at his clinic at the Hôtel Dieu on this subject. He began with the statement that the relation between affections of the eye and the different diatheses was little known among the ancients, and it was only at the end of the last century that the idea of connecting rheumatism with diseases of the eye was entertained. The classification of ocular affections was somewhat confused as regards the diathesis. Thus we find acute glaucoma classed among the rheumatic affections of the eye. In our own time there is less confusion in the classifications; but, notwithstanding the improved methods of diagnosis at our disposal, there is yet a great deal to be done in the way of assigning each disorder or group of disorders of the eye to their proper diatheses. For instance, iritis is, for the most part, ascribed to syphilis; it is, indeed, the tendency of the day to put down almost every manifestation of disease to that affection. According to M. Panas, the proportion of iritis due to syphilis is not nearly so great as is generally given in classical works on ophthalmology, and a larger margin may be left for rheumatismal iritis, with which iritis of syphilitic origin is so frequently confounded. The one is perfectly distinguishable from the other, the former assuming always the serous form, whereas the latter assumes the plastic form. Rheumatismal iritis is, therefore, also termed serous iritis, and is accompanied by extravasation of fluid into the anterior chamber of the membrane of Descemet, which M. Panas considers pathognomonic of this affection. Moreover, the synechiæ that are produced in rheumatismal iritis are easily broken; this is an important element in the prognosis of the disease, and is to be met with only in rheumatic subjects, particularly of the chronic form; it is very frequently also found among gouty individuals, but it exists rarely as a complication of acute articular rheumatism. The cornea is less susceptible to the influence of rheumatism; and, strange to say, the sclerotic is not mentioned in this connexion, as *a priori* the fibrous nature of this membrane would seem to point to it as the seat of predilection of the manifestations of a rheumatic or gouty nature. After entering into considerations of other parts of the eye in connexion with rheumatism, Prof. Panas stated that ophthalmologists are as yet undecided as to classifying conjunctivitis among the manifestations of rheumatism, as it is so easily confounded with conjunctivitis resulting from other causes. As regards treatment, the lecturer dwelt upon the necessity of combining general with local measures, keeping in view the diathetic connexion that may exist between rheumatism and the ocular affection, without which the treatment must end in a lamentable failure; thus, salicylic acid for the rheumatic diathesis, mercury for the syphilitic, colchicum for the gouty and iodine for the scrofulous.

DEATH OF DR. HOUZELOT.

The death is announced of Dr. Houzelot, which took place at Meaux, in the eighty-second year of his age. Dr. Houzelot was the son of a medical man who had attained a certain reputation in the same city, under whom he prosecuted his medical studies, and in 1827 he took his degree as Doctor of Medicine of the Faculty of Paris, the subject of his thesis being "On the Fracture of the Lower Jaw," in which he gave a description of an apparatus, of which he was the inventor, for the treatment of this accident. On his return to Meaux he soon acquired a good practice, and was appointed surgeon to the General Hospital of that city, a post which he held for nearly half a century. During the last few years of his life, however, he was obliged to retire from active work, not only on account of his age, but from being affected with a double cataract. He was member of several learned Societies, and was the first medical man in France that applied chloroform in obstetric practice, publishing in 1854 a voluminous memoir on the subject.

Paris, Feb. 19th.

NEW YORK.

(From a Correspondent.)

THE annual report of the Commissioner in Lunacy furnishes some interesting facts in regard to the institutions for the insane in the State of New York. The population of the State is about 5,000,000, and the number of insane is 14,000, of whom 11,343 are in public care and custody. The latter are found in State asylums, almshouses, county asylums, and private asylums. There are eight State asylums, four of which receive only the acute insane, two receive only the chronic insane, one is devoted to the insane criminals, and one receives only insane immigrants. The four asylums for acute insane received during the year 1116 patients; the total number under treatment was 2427; the number discharged was 742, of whom 309 were recovered, 175 improved, 268 unimproved; 25 were not insane; 149 died. The percentage of recoveries on admissions was $27\frac{7}{11}$, and on the whole number under treatment $12\frac{1}{4}$; the deaths were $6\frac{1}{2}$ per cent. of the entire number under care. The two asylums for chronic insane admitted 367, and discharged 193;

the total under care for the year was 2416. There were on Oct. 1st, 5016 insane in city asylums and almshouses, 1869 in county asylums and poor-houses, 558 in private asylums, 144 in the Asylum for Insane Criminals, and 109 in the Asylum for Insane Immigrants. The Commissioner gives at length the condition of the insane in these several classes of institutions. The State asylums are among the finest in the country, and are uniformly well managed. The county asylums are much inferior, while the poor-houses are totally unfit for the residence of the insane. The statistics which the report gives show that more than half of the insane of the State are in the inferior class of institutions, and about one-sixth are still in the common poor-houses. In these institutions the insane were found undergoing every form of restraint hitherto known. One section of the report is devoted to the influence of emigration on the increase of insanity; and it is very clearly shown that it is due to the foreign-born population that the rate of increase of the insane in this State is excessive. Excluding the foreign born, the rate of increase of the insane is much less than that of the population. The amount and kind of restraint employed in institutions are fully given. In asylums for the acute insane it is resorted to chiefly for surgical and medical reasons. In the asylums for the chronic insane it is quite discontinued; for example, in one, "Willard," with 1750 patients, there are many days on which no record of a case of restraint is made. The commissioner strongly recommends the abolition of the poor-house as a place of residence for the insane, and approves of enlarging the State institutions. He notices favourably the Reception House for those suspected of insanity located at Bellevue Hospital. In this pavilion the person is detained for observation for several days, and is closely examined by the examiners in lunacy from time to time if the case is doubtful, before he is committed or discharged. The result of this watchfulness was that at least one-fourth of those brought to the pavilion as insane were discharged as not insane during the year. Most of those thus discharged were suffering from alcoholism.

New York, Jan. 24th, 1884.

Obituary.

ALEXANDER THOM THOMSON, F.R.C.S., J.P.

MR. ALEXANDER THOM THOMSON, who, on Jan. 29th, at his residence, Montrose House, Oldham, passed away at the age of sixty-three, was born at Montrose in 1820. His professional training was received first as apprentice to his uncle, the late Mr. Thom of Dobeross, and afterwards at the Edinburgh College of Surgeons. He became L.S.A. in 1843, receiving the same year the diploma of the College of Surgeons of England, and obtained the Fellowship in 1858. Mr. Thomson commenced the practice of his profession at Cheadle, Cheshire, in 1843, where he remained until 1854, when he succeeded the late Mr. Dunkerly of Oldham. Here he acquired a large practice, which he pursued with energy until, in 1864, his health broke down and evidence of degeneration of the cerebral arteries became apparent. Rest, however, having re-established his health, he was enabled to take a fairly active share of work up to 1873, when a small cerebral hæmorrhage was followed by slight left hemiplegia, which speedily passed off, but left his health permanently impaired. From this time forward he was unable to take an active share of work, and finally retired from the practice of his profession at the end of 1878.

Mr. Thomson took a strong interest in all matters affecting the general welfare of his profession. He played an active part in the organisation of the Oldham Infirmary twelve years ago, and succeeded then in getting the principle of payment for medical services recognised—a subject on which he held strong opinions. He also organised a system of inquiry for the purpose of keeping a check on the abuse of the charity, which has continued in successful operation ever since. On his retirement from professional work in 1878, Mr. Thomson was appointed justice of the peace for the county of Lancaster in 1879, and devoted himself with ardour to his duties on the bench, on the County Finance Committee, and as a visiting justice to the asylums. For some months before his death he had been conducting a physiological class for young men at a neighbouring church institute, which afforded him great pleasure and it was in walking home from presiding at a meeting in this institute, in the terrible wind of Jan. 26th, that the seizure took place which terminated fatally, the cold and severe physical exertion bringing on a return of the cerebral hæmorrhage of ten years ago. Mr. Thomson's was one of those rare natures which unite to solid qualities such as we have described social gifts of the highest order.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Tuesday the London Hospitals Bill was read a second time.

In the House of Commons on Thursday, the 14th inst., the annual address was agreed to for copy of the inspectors' reports of experiments in vivisection made during 1883.

Cork Gaol.

On Monday, in reply to Mr. Harrington, Mr. Trevelyan stated the circumstances of the death in Cork Gaol of a prisoner named Hoggan. It appeared that the man was isolated for suspicious disease, and was kept in his cell; but as soon as the real nature of his disease was recognised he was removed to hospital. It was an acting medical officer who examined the prisoner on his committal, and as the Government were not satisfied that he proved himself qualified for such employment they had directed that he should not be employed in that capacity again. A question was also put by the same hon. member as to the death of a prisoner in Belfast Gaol, and Mr. Trevelyan replied that every care was taken of him in the prison infirmary.

Dr. Sigerson.

Col. King-Harman asked whether Dr. George Sigerson, of Dublin, who had been appointed a member of the Prisons Commission, was not formerly a writer of seditious articles in the *Irishman*.—Dr. Lyons inquired whether Dr. Sigerson was not a gentleman of high scientific reputation.—Mr. Trevelyan said the imputation contained in the first question was denied by Dr. Sigerson, whose high position in the medical profession, and the special attention he had given to hospitals and matters connected with the public health, amply justified his appointment.

A Bill to amend the Public Health Acts in relation to private improvement expenses was brought in by Mr. Dodds, and read a first time.

On Tuesday, a petition was presented from the Hackney Working Men's Club in favour of a Bill to allow ratepayers to elect inspectors of lunatic asylums.

Educational Pressure.

Mr. Mundella, in reply to a question put by Mr. Raikes, informed the hon. member that he had read Dr. Crichton Browne's letter on overwork in schools, and had also had the advantage of seeing that gentleman on the subject. Dr. Browne told him that what he had in his mind when he wrote the letter was the heavy home lessons, and the consequently late working hours of children attending middle-class and high schools. Over these schools the Educational Department had no control. Dr. Browne had agreed to visit some of the public elementary schools in London, and to give an opinion on their work from a sanitary point of view. The most careful and searching inquiries were being made into these allegations of overpressure, and the results would be laid before Parliament. In reply to Mr. S. Leighton, Mr. Mundella said a strict investigation was being made into the report that fourteen female teachers in Southwark had broken down from overwork.

The Army Hospital Corps.

Sir Harry Verney gave notice that he will ask the Secretary of State for War whether, in the field hospitals detailed for service in the approaching campaign, any increase of the Army Hospital Corps staff will be made for the purpose of providing washermen, sanitary police, watermen, and other subsidiary services of the hospital, of which there was so much need in the Egyptian campaign.

The Indian Medical Service.

Mr. Gibson gave notice, on Wednesday, that next week he will ask the Under Secretary of State for India whether any, and what, steps have been taken since last August by Her Majesty's Government to meet the grievances of the Indian Medical Service, and to lessen the dissatisfaction which exists in all its ranks.

The Cholera Commissions.

Dr. Cameron gave notice that he will ask the President of the Local Government Board whether, in consideration of the exceptional importance to Her Majesty's subjects in India of accurate knowledge as to the nature and causes of cholera, he will communicate with the Foreign Office as to the possibility of presenting to Parliament translations of the reports of the Commissions recently sent out by M. Pasteur and Dr. Koch to Egypt and India to investigate the pathology of that disease.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen, having passed the required examination, received the diploma in Dental Surgery at a meeting of the Board of Examiners on Wednesday last:—

Apperley, Herbert, Stroud, Gloucestershire.
Ayers, A. W. Percy, Stratford-Place.
Baldwin, Harry, Moore-street.
Buckland, Sydney Charles, Wimbledon-park.
Fox, Arthur Makinson, Teddington.
Mundell Stephen, Leeds.
Pedley, Richard Denison, M.R.C.S., Borough.

Two candidates were referred.

Professor Flower will commence his course of nine lectures on "The Principal Types of the Human Species" on Monday next, at 4 o'clock P.M.

BRITISH MEDICAL SERVICE.—The following candidates were successful for appointments as Surgeons in the Army Medical Service at the competitive examination held in London on Feb. 4th:—

	Marks.		Marks.
J. R. Barefoot ..	2440	J. J. P. Doyle ..	2145
R. H. Clement ..	2420	N. Manders	2120
G. D. Hunter ..	2335	L. R. Colledge ..	2100
W. C. Beevor ..	2300	S. F. Freyer	2075
L. E. Anderson ..	2275	C. Birt	2070
G. B. Russell ..	2250	R. S. F. Henderson	2020
A. E. C. Spence ..	2220	H. Mitchell	2000
J. R. Mallins ..	2200	S. Butterworth ..	1990
R. J. McCormack ..	2180	C. J. Holmes	1930
H. N. Thompson ..	2169	J. R. Lane	1920

NAVAL MEDICAL SERVICE. — At the competition for commissions in this Service, held in London on Feb. 4th and following days, the undermentioned gentlemen were the successful candidates:—

	Marks.		Marks.
F. M. Puddicombe	2425	J. H. Thomas	2130
D. S. Gunn	2230	F. J. Lilly	2120
H. J. Gordon	2220	J. Dowson	2070
H. Harries	2200	G. F. Dean	2055
E. Corcoran	2145	G. Welch	2050
J. Lloyd Thomas ..	2145	H. F. Illewicz	2030
J. L. Smith	2140		

INDIAN MEDICAL SERVICE.—The following candidates for appointments as Surgeons in this Service were successful at the competitive examination held in London on Feb. 4th and following days. (Twenty-one candidates competed for five appointments; all were reported qualified):—

	Marks.		Marks
J. H. T. Walsh ..	2564	G. H. Fink	2071
H. Hendley	2110	W. G. P. Alpin ..	2040
H. E. Banatrala ..	2102		

COLLEGE OF PHYSICIANS IN IRELAND. — At the February examinations the following gentlemen obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—William Patrick Delahunt, Sinclair Finlay, Edward Benjamin Hazleton, Nathaniel S. Manning, Francis Fitzmaurice Peet, William Thomas Price, Francis Christian Roe, Ventry Alexander John Smith.

MIDWIFERY.—Henry Edward Brown, Cecil Arthur Digby, Sinclair Finlay, Edward Benjamin Hazleton, Nathaniel S. Manning, Francis Fitzmaurice Peet, Ventry Alexander John Smith.

The undermentioned has been admitted a Member:—

George Deane Bourke.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Feb. 14th:—

Hall, William George, Swindon, Wilts.
Hill, George William, Sidney-street, South Kensington.
Livermore, William Leppingwell, Queen's-road, Finsbury-park.
Martin, Thomas Berkeley, Hylton-road, Sunderland.
Nicholson, Henry Gilbert, St. Peter's-square, Hereford.
Waters, Avery Clough, Mornington-road, Bow.

The following gentleman also on the same day passed the Primary Professional Examination:—

Thomas, Edwin Clifton, London Hospital.

ON the 16th inst., at the Glamorganshire assizes, Dr. Price was acquitted on the charge of burning the body of his deceased infant in such a manner as to outrage public feeling.

LONDON SANITARY PROTECTION ASSOCIATION.—The third annual general meeting of this Association is to be held in the Library of the Social Science Association, 1, Adam-street, Adelphi, on Saturday, Feb. 23rd, at 4 P.M. An interesting discussion is expected.

CITY DISPENSARY.—On Tuesday the Lord Mayor presided at the 95th anniversary of this institution. During the past year 14,870 patients had participated in the benefits of the charity. Donations during the evening to the amount of £380 were announced.

THE ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-road, held its annual meeting on Tuesday, under the presidency of the Lord Mayor. The annual expenditure was stated to be over £3000, and during the past year the receipts had fallen short of this sum by £400.

SEAMEN'S HOSPITAL SOCIETY. — At the recent annual court of this institution, better known as the *Dreadnought*, it was stated that the expenditure for 1884 was estimated at £12,500. The reliable income amounts to £4500, leaving £8000 to be raised by contributions. During the past year the number of in-patients who were under treatment was 2428, the out-patients amounting to 5894. The average number of beds constantly occupied was 199.

THE HYGIENE OF CHILDREN. — It is stated that with a view to the discussion of questions of school hygiene, periods of study, gymnastic training, prevention of disease, and allied questions connected with growing boys and girls, it is proposed to form a society of medical officers of public, charitable, and general schools. At the meeting of this society papers on these important questions would be read and discussed, and the experience gained in the various institutions collected for the general good.

PRESENTATIONS.—On Friday last Dr. Robson Roose, of Brighton, was presented with an address and a service of plate as a mark of the appreciation of his professional services which is entertained by his patients and friends. The address bore numerous signatures.—The members of the Barrow-in-Furness Centre of the St. John Ambulance Association have presented Mr. Sheaf with an illuminated address and several volumes of books as an acknowledgment of the instruction he has rendered to the classes.

SURGICAL INSTRUMENTS FOR THE NECESSITOUS POOR.—At a meeting on the 20th inst. at the Mansion House, to consider the subject of devising better means of supplying surgical instruments and appliances to the poor, a resolution was proposed declaring that the present system of supplying the necessitous poor with such instruments by the hospitals and other agencies was faulty and needed improvement. The matter was ultimately referred to a a small committee, with a view to combine the various societies providing surgical instruments, and to agree on a general scheme.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BERRESFORD, RALPH, L.S.A.Lond., has been appointed Junior Assistant House-Surgeon to the Public Hospital and Dispensary, Sheffield, vice H. Lockwood, M.R.C.S., L.S.A.Lond., appointed Assistant House-Surgeon.

BROOKS, W. TYRRELL, M.B.Lond., Demonstrator of Physiology in King's College, has been appointed Physician to the Radcliffe Infirmary, Oxford.

DINGLEY, EDWARD ALFRED, M.D.Lond., M.R.C.S., has been appointed House-Physician to the Wolverhampton and Staffordshire General Hospital, vice Dr. Collier, resigned.

FINLAY, the Rev. HUNTER, M.D., has been appointed Health and Government Medical Officer for the District of Ravenswood, Queensland. Also a J.P. for the Colony of Queensland.

GREEN, EDWIN COLLIER, M.R.C.S., L.S.A.Lond., L.R.C.P., has been appointed House-Surgeon to the Derbyshire General Infirmary, vice W. Bentball, M.B.Cantab., M.R.C.S., L.S.A.Lond., resigned.

HUDSON, P. J., M.D., L.R.C.P.Lond., has been appointed Medical Examiner to the Blue Ribbon Life Insurance Company, for the Leeds District. Also Physician to the Social Union Friendly Society, Leeds Centre.

ILES, ALFRED ROBERT, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer to the Workhouse, Taunton Union.

LOCKWOOD, H., M.R.C.S., L.S.A.Lond., has been appointed Assistant House-Surgeon to the Public Hospital and Dispensary, Sheffield, vice Thos. Greaves, L.R.C.P.Lond., M.R.C.S., resigned.

MADDISON, W. T., M.B., has been appointed Assistant Medical Officer at the Darenth Asylum for Imbecile Children.

MAGUIRE, ROBERT, M.D.Lond., M.R.C.P., Pathologist to the Manchester Royal Infirmary, has been appointed Demonstrator and Assistant-Lecturer on Pathology in the Owens College, Victoria University.

MARSH, O. E. BULWER, M.R.C.S., L.R.C.P., L.M., has been appointed Honorary Surgeon to the Newport (Mon.) Infirmary, vice B. Davies, resigned.

MONTGOMERY, SAMUEL, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Ovenden District of the Halifax Union.

NEVILLE, M. O'B., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to Ballineen Dispensary District, co. Cork, vice A. H. Bryan, deceased.

PERRIN, W. BOULTER BRODRIBB, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Cameley District and Workhouse, Clutton Union.

PRICE, JOHN DUDLEY, M.R.C.S., has been appointed Medical Officer for the Dudley North District of the Dudley Union.

SCOT-SKIRVING, ROBERT, M.B., M.Ch.Ed., has been appointed Resident Medical Superintendent to Prince Alfred Hospital, Sydney.

TOMKINS, ARTHUR WELLESLEY, M.D.T.C.D., L.R.C.S.Ed., has been appointed Medical Officer for the Leamington District of the Warwick Union.

VIOLETTE, WILLIAM BRADLEY, M.B., M.Ch.Glas., has been appointed Resident Medical Officer to the Sydney Hospital.

VOIGT, J. C., M.B., C.M.Ed. (late Surgeon to the Netherlands-Batavian Mail), has been appointed Senior Resident Medical Officer to the Bury Infirmary, Lancashire.

WILSON, JOHN SCOTT, M.D., M.Ch.Glas., has been appointed Government Medical Officer and Vaccinator for the District of Wilcannia, New South Wales.

Births, Marriages, and Deaths.

BIRTHS.

BURN-MURDOCH.—On the 19th inst., at St. Bride's, Morningside, Edinburgh, the wife of T. Barn-Murdoch, M.B., of a daughter.

DUNLOP.—On the 9th inst., at Belgrave House, Jersey, the wife of Andrew Dunlop, M.D., of a daughter.

GWYNN.—On the 17th inst., at Catford, the wife of R. H. Gwynn, L.R.C.P., of a son.

KESTEVEN.—On the 18th inst., at Holloway-road, the wife of W. Henry Kesteven, M.R.C.S., of a son.

MCMILLAN.—On the 10th inst., at Sheffield-road, Barnsley, the wife of Hugh McMillan, M.D., of a son.

MASTERS.—On the 12th inst., at Chelmsford House, Ramsgate, the wife of Edgar E. Masters, L.R.C.P.Lond., M.R.C.S.E., of a daughter.

MYERS.—On the 12th inst., at Westfield, Caterham, the wife of Arthur B. R. Myers, Surgeon-Major Scots Guards, of a daughter.

MARRIAGES.

DONALDSON—MCSWINEY.—On the 19th December, at Queenstown, Lake Wakatipu, New Zealand, Henry Donaldson, M.R.C.S., Surgeon to the Arrow District Hospital, to Frances Marie McSwiney.

HOSKINS—JOHNSTON.—On the 7th inst., at Aberdeen, by the Rev. G. H. Knight, William Hoskins, M.B., of Buenos Ayres, to Georgina, younger daughter of George Johnston, of Aberdeen.

PICKEN—CRAIG.—On the 4th inst., at First Randalstown Presbyterian Church, by the Rev. James E. Ferguson, B.A., James Picken, L.R.C.P.Ed., L.R.C.S.Ed., of Hazelbank, Randalstown, to Anna, daughter of the late James Craig, of Clonbuoy House, Randalstown.

ROBERTSON—ROCHFORT.—On the 14th inst., at St. James', Piccadilly, C. A. Lockhart Robertson, M.D.Cantab., F.R.C.P., to Mabel, only daughter of the late Colonel Rochfort, Madras Army, and step-daughter of G. W. Turnbull, M.D., of Exmouth.

SAUL—BROUN.—On the 12th inst., at St. John's Episcopal Church, Dumfries, William Saul, M.D., of Bedford-square, London, to Mary, third surviving daughter of the late William Broun, ninth Baronet of Colstoun.

WATSON—BARLOW.—On the 13th inst., at St. Matthew's, Brixton, James Watson, M.D.Edin., Physician to the British Consulate, Newchwang, China, to Margaret Toulmin, youngest daughter of the late Samuel Barlow, Esq., of Brixton-rise, Surrey.

DEATHS.

BULL.—On the 13th inst., at Shenley House, the residence of her cousin, James Waddell, Esq., Louisa Jane, the beloved wife of William H. Bull, Surgeon, St. Oswald's House, Stony Stratford, aged 27.

BUSHNAN.—On the 17th inst., after a lingering illness, John Stevenson Bushnan, M.D. &c., aged 76.

CARMICHAEL.—On the 17th inst., at Mentone, William Carmichael, M.D., late Staff-Surgeon R.N., fourth son of the late A. N. Carmichael, of Edinburgh Academy, aged 47.

GOLDSBRO'.—On the 20th Dec., at Parnell, Auckland, New Zealand, Charles Field Goldsbro', M.D. & J.P., youngest son of the late Rev. Thomas Goldsbro', of Trelystan, Montgomeryshire.

SCOTT.—On the 10th inst.; at Shrewsbury, Ebenezer Samuell Scott, M.B., C.M.Ed., aged 31.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, Feb. 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Flower, "On the Principal Types of the Human Species."

MEDICAL SOCIETY OF LONDON.—Discussion on the Cold Bath Treatment of Enteric Fever continued, by Drs. Cayley, Samuel West, Gilbart Smith, A. T. Myers, and Mahomed.

Tuesday, Feb. 26.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Geikie, "On Scenery of the British Isles."

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Rev. Lorimer Fison, "On the Nanga, or Sacred Stone Enclosure of Wainimala, Fiji."—Rev. R. H. Codrington, "On the Melanesian Languages."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Thomas F. Chavasse, "On Neurectomy of the Second Division of the Fifth Nerve."—Mr. Christopher Heath, "On a Case of Amputation of the Arm and Scapula for Ossifying Sarcoma; Recovery."—Dr. Heneage Gibbes will show Microscopic Specimens of Putrefactive Organisms at 8 o'clock.

Wednesday, Feb. 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Flower, "On the Principal Types of the Human Species."

HUNTERIAN SOCIETY.—8 P.M. Mr. Clement Lucas, "On Injuries to the Kidney."—Mr. Poland, "On a Case of Acute Suppuration of the Hip and Elbow Joints."

Thursday, Feb. 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On the Older Electricity."

Friday, Feb. 29.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Flower, "On the Principal Types of the Human Species."

ROYAL INSTITUTION.—3 P.M. Professor Hughes, "On the Theory of Magnetism."

CHARING-CROSS HOSPITAL MEDICAL SOCIETY.—8 P.M. Mr. H. Montague Murray, "On the Value of Phrenological Theories."

Saturday, March 1.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Captain Abney, "On Photographic Action."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Feb. 21st, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 15	30·03	E.	42	41	..	45	40	·02	Cloudy
,, 16	30·12	E.	38	35	..	42	33	..	Bright
,, 17	29·91	E.	39	37	..	44	34	..	Bright
,, 18	29·90	S.E.	37	34	..	45	33	..	Bright
,, 19	29·78	S.E.	42	42	..	50	35	·12	Raining
,, 20	29·88	S.W.	48	46	..	55	40	·02	Cloudy
,, 21	29·77	S.	45	44	..	51	44	·13	Raining

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

QUACK HANDBILLS.

THOSE most mischievous advertising circulars issued by "quacks," and even, we fear, by some qualified practitioners, are still thrust into the hands of young men and boys in the streets. Of late the persons engaged in this obscene propaganda have exhibited more caution than of old, and they often abstain from offering the "bill" to persons who look likely to take offence and perhaps expose them. The public will do well to be on their guard, and young men and youths should discourage the practice by refusing the handbills. Indeed, it would be well if everybody refused papers thrust into their hands in the streets.

Dr. Tomkins (Manchester).—Paper and blocks received. Will be published soon.

"TEMPERANCE PRINCIPLES."

To the Editor of THE LANCET.

SIR,—I notice in your issue of the 16th inst. an annotation referring to this asylum. I do not know whence you have derived the information upon which your statements are founded, but there is evidently a misconception of facts. On opening the asylum I recommended the Committee of Visitors to sanction the exclusion of beer from the *ordinary* dietary of the patients, and a resolution was passed to this effect. This I did after full consideration and inquiry as to results in the many county and borough asylums in which the system has been adopted. So far, however, from any idea that the asylum is to be worked on "temperance principles," the medical officers have discretionary power to order, and do order, any quantity of alcoholic stimulant and malt liquor they may deem necessary in the treatment of individual cases.

I am, Sir, yours faithfully,

JAMES M. MOODY,
Medical Superintendent.

Cane-hill Asylum, Purley, Surrey,
Feb. 18th, 1884.

*** We are glad to know that the asylum is *not* to be worked "on temperance principles;" but why not countermand alcoholic stimulants in cases where these are likely to be injurious, instead of making them wholly *extras*? It certainly looks like trying to be "teetotal" if possible.—ED. L.

Messrs. Kesteven and Son.—See THE LANCET of last week, page 326.

Mr. Rayner.—The paper is marked for insertion.

TREATMENT OF ERYSIPELAS BY WHITE LEAD.

To the Editor of THE LANCET.

SIR,—I would esteem it a favour if any brother practitioner would give a brief statement in your journal of the result of his experience in the treatment of erysipelas by painting the affected part with white lead.

I am, Sir, yours faithfully,

Feb. 18th, 1884. EXPECTANS.

THE PREVALENCE OF CONSUMPTION AMONGST PRISONERS.

THE observations of Dr. Baer, chief medical officer at the Plötzensee Prison, near Berlin, have demonstrated the fact that the mortality in the State prisons for the three years 1878 to 1880 represented an annual death-rate of 30·6 per thousand. In describing the general results of his experience, in the *Zeitschrift für Klinische Medicin*, he alludes to the fact that previous to the improvement in prison arrangements, which was brought about early in the present century, malignant typhus, gaol fever, and small-pox decimated the inmates of such establishments. At a later period, when, notwithstanding the advance made in the direction of reform, prisoners were kept in unhealthy cells, and were fed insufficiently as well as injudiciously, scorbutic affections and diarrhœa became frequent. Now that in most instances the arrangement of prisons is in accordance with sanitary requirements, it would seem that consumption has taken a leading position amongst the recorded causes of mortality. Various statistics as to the last fifty years are quoted by Dr. Baer in confirmation of these assertions. As to the institution under the care of Dr. Baer, it would appear that between 1873 and 1882 only 6½ per cent. of the deaths were attributed to consumption, but out of 112 cases in which prisoners were discharged upon medical grounds, 45 were suffering from the disease in various stages. As to the disease being brought on by confinement in prison, Dr. Baer considers this is proved by the facts that the greatest mortality is traced to the second and third years of captivity, and that persons in solitary confinement have been found to be frequently attacked by the disease in question.

H. should forward his question, with copies of the Bill, to the bodies concerned.

Mr. Tyrrell.—We cannot promise until we see the paper.

LOOK TO YOUR KITCHEN BOILERS.

To the Editor of THE LANCET.

SIR,—The following notes are of interest as calling attention to an unusual source of lead-poisoning.

On the 13th Nov. last I was called to see Mr. B——, a house decorator, and his wife, who were suffering from symptoms suggestive of lead-poisoning. I questioned him closely, but found that, being fully alive to the danger of carelessness in the matter, he had always been very careful to wash his hands before eating, and, though he had been at the same work for many years, he had never suffered from lead colic; moreover, carelessness on his part would not account for his wife's illness. Casting about for other sources of irritant poisoning, I questioned them closely as to the possibility of arsenic poisoning from wall papers, &c., with negative results. The cooking utensils were also examined, but were found in good order. The drains had been put in order under his own supervision not many months before. I found on inquiry that they had suffered most after eating vegetables, of which they were accustomed to eat freely, and on one occasion Mr. B—— suffered severely after drinking tea. I was persuaded that there was some cause which we had not found out, more especially as the patients, though improving under treatment, did not completely recover, and suffered from time to time from relapses. This went on for some five or six weeks, during which time their cat died and a favourite dog became very ill. On Boxing night a friend came with his wife, a delicate woman, to dine with Mr. and Mrs. B——. During the night the wife was taken ill with similar symptoms to those from which Mr. and Mrs. B—— suffered. At the request of her husband, Mr. B—— renewed his search for the cause of mischief, and on examining the kitchen boiler found in it a quantity of red lead. A new tap had some few months before been put in the boiler, and one of the workmen had carelessly thrown in a large lump of red lead, which was left over when they had finished the job, in order to get rid of it. Here, then, was the source of the trouble, and since it has been removed Mr. and Mrs. B—— have recovered their usual health. The boiler had not been used for some time after the tap was put in, and when it was the servant was warned not to use the water from it for cooking purposes. This order she appears to have obeyed only so far as her own food was concerned, hence her immunity from sickness.

I am, Sir, yours, &c.,

AWDRY PECK, M.R.C.S., &c.

Torrington-square, W.C., Feb. 1884.

An Indian Student is referred to our article on Books in the Students' Number of THE LANCET, published in September last.

EARLY MATERNITY.

To the Editor of THE LANCET.

SIR,—I enclose you the particulars of a case which has occurred in my practice, and which I consider well worth publishing.

J. M——, aged fourteen years and three months on the 14th Feb. this year, gave birth on Saturday morning last, the 9th inst., to a fully developed female child at full term, four hours only intervening between the commencement and termination of the labour. She awoke soon after 12 A.M. complaining of pain. At 2 A.M. I was called in, and found the os well dilated, with the parts in a favourable condition for expulsion of the fœtus. I waited until 3.30 A.M., when, all pains having apparently ceased, I delivered with instruments. The patient at the time of writing (five days after confinement) is doing well.

I am, Sir, yours, &c.,

WM. J. IRVINE, L.R.C.P., L.R.C.S. Ed.

Robin Hood-street, Nottingham, Feb. 13th, 1884.

PLANT THERAPEUTICS.

M. VILLERMOZ, a celebrated horticulturist, recommends the watering of diseased plants with warm water, after having previously turned up the earth, without touching the roots. The water that escapes from the bottom of the flower-pot is at first clear, but it afterwards becomes lightly brown and yields an acid reaction, to which M. Villermoz attributes the diseased condition of plants, the hot water acting not only as a stimulant, but possessing the power of eliminating the acid substances with which the soil becomes impregnated. By this treatment M. Villermoz has seen almost completely withered plants restored to life in a short time, and he thinks that the same may be applied to plants in the open air.

Sanitas.—Yes, an exceedingly good exercise; may be employed both on rising, after the morning bath, and on going to bed at night, always supposing the person to be healthy and free from any serious chest disease or disease of the arteries.

LOSS OF SENSATION IN THE LEG.

To the Editor of THE LANCET.

SIR,—I was consulted a fortnight ago by a patient who complained that for three weeks his left foot and calf felt "as though they did not belong to him;" also that he could not manage to keep them warm. He informed me that he was a farm labourer, and had been actively engaged for some time digging in the hop fields. He first experienced a severe tingling, as "of pins and needles," between the toes of the left foot, which was soon followed by a loss of sensation about them. This condition gradually spread to the ankle, and from there to two-thirds up the calf, the loss of sensation being always preceded by severe tingling and twitching of the part about to be affected. On comparing the two legs, the only thing to be remarked was the extreme pallor of the left foot and leg, and on further examination I found a complete loss of sensation in the affected part. There was no loss of motor power however. The condition of the right foot and leg was normal. Believing that the affection arose from the continual pressure of the spade on the arch of the foot, I recommended complete rest and administered tonics; the foot to be well rubbed and wrapped in flannel. This was followed with the best results in ten days. I met a similar case six months back in a lady, occurring, however, in both feet, and which, I believe, was due to the very high-heeled boots she was wearing. On inquiry amongst agriculturists I find that this anæsthetic condition of the left foot and leg is by no means uncommon among the hop-diggers, and that when neglected it is sometimes followed by permanent evil results. I cannot find any similar case mentioned in our text-books, and this must be my apology for taking up your valuable space.

I am, Sir, yours faithfully,
Jan. 23rd, 1884. M.B.

Africanus should apply at the office of the Crown Agents for the Colonies, Downing-street, S.W.

A CASE OF TETANY.

To the Editor of THE LANCET.

SIR,—Perhaps the rarity of this disease may make it of sufficient interest to record a case in THE LANCET.

The patient is a butcher, aged twenty-six years, slight in build, and of a nervous and excitable temperament, with a history of tendency to eccentricity, but not more than this, in his family. When I first saw him he had well marked muscular spasm in both forearms, but only slight contraction of the feet and toes, which had been present since the previous evening. He had also ordinary catarrh, resulting from getting very wet on three consecutive days in the previous week. The hands were flexed at the wrists; the fingers semi-flexed at the metacarpo-phalangeal joints; the fingers extended, close together, and inclined towards the thumb; the thumb was extended, and turned in upon the palm. The contraction of the muscles was continuous, lasting several hours, and leaving aching pain in the forearm as far as the elbow, and slight pain in the legs as high as the knee. The tingling and pricking sensations described as preceding the muscular spasm did not occur until after the spasm had been relieved in this case. The cause of the tetany seems to have been chronic diarrhœa; he had been moved five times a day for several months. The treatment was bromide of potassium and morphia, with measures to relieve the diarrhœa. Recovery followed in a few days.

I am, Sir, yours, &c.,
Croft House, Crawshawbooth, Manchester, J. L. KERR, M.B., &c.
Feb. 13th, 1884.

INFANTILE SCURVY.

To the Editor of THE LANCET.

SIR,—In your report of the discussion at the Harveian Society on Mr. Owen's case of Subperiosteal Hæmorrhage in Infantile Scurvy, published in this week's LANCET, there is an error with regard to a statement of mine, which I should be glad to have corrected, since it is important, and seriously misleading. I am made to say that I "had seen a case of infantile scurvy recover completely under the exclusive use of Swiss milk." What I *did* say was the exact opposite of this—viz., that I had recently seen a case of scurvy in a child fed exclusively on Swiss milk—i.e., that the diet of condensed milk proved a scurvy diet, caused the disease, and did not cure it; and I further stated that the scorbutic condition quickly disappeared on an antiscorbutic diet of fresh milk, raw meat, and potato pulp.—I remain, Sir, yours faithfully,
Hyde-park-place, W., Feb. 15th, 1884. W. B. CHEADLE, M.D.

THE GROCERS' PRIZE.

AN amusing passage occurs in the *Gazette Médicale de Paris* for Feb. 16th: "Perhaps some of our readers may ask what learned body or academy offers such a prize. Well, it is neither the Institute of France nor any other national academy, imperial or royal, but simply the Company of Grocers of London. *Britannia for ever!*"

M. A. B.—The writer of the letter enclosed appears to be under the impression that ordinary washing soda contains caustic properties. Of course either the bicarbonate or washing soda is objectionable when employed in large quantities for cooking purposes. But "One who knows" seems, from want of chemical knowledge, to have unduly magnified the danger arising from the practice to which he refers.

SNAKE-POISON.

To the Editor of THE LANCET.

SIR,—Having waited for the final portion of Sir Joseph Fayrer's address on the treatment of the poisoned by snake-bite, published in your last week's issue, and not having seen any reference to experiments in which the blood or any constituent of the blood of the biting snake was used as an antidote to its own poison, I should like, with your kind permission, to ask those of your correspondents interested in the subject of snake-poison whether they have tried such experiments themselves or heard of any such performed by others, also the results obtained. I ask the above question on behalf of a friend of mine now in India whom I have requested to carry out a few experiments with cobra poison, but am unwilling that he should undertake any experiment which has failed in more experienced hands. Should these experiments with the cobra blood, or defibrinated blood with or without the addition of certain medicinal agents, fail (if they have not already failed in other hands), I intend to ask him to turn his attention in the next place to the poison gland. Perhaps in its tissues, after the poison has been thoroughly removed, lies some ferment or active principle which may prove to be a perfect physiological antidote.

I cannot close my letter without expressing the great satisfaction I derived on reading Dr. Norman Chevers' idea regarding the antidote to snake-poison (THE LANCET, Feb. 2nd, p. 207), an idea similar, if not identical, with mine, and no doubt based on the same biological facts.

I am, Sir, your obedient servant,
Feb. 18th, 1884. INCOGNITO.

J. M. M.—The Bill is not yet introduced. If our correspondent will repeat his questions after its introduction, we will try to answer them, but it is not likely to affect him.

SANATORIA IN THE SOUTH.

To the Editor of THE LANCET.

SIR,—I find that a circular letter and prospectus have been recently posted to the members of the profession relative to the formation of a sanatorium at Black Gang Chine, Ventnor. The letter contains the following sentence:—

"At present hydropathic establishments are the only institutions which afford the advantages proposed to be supplied by the sanatorium, consequently medical men, although they may not approve of that treatment, are compelled to recommend their patients to those establishments by reason of the absence of one conducted on principles generally acquiesced in by the profession."

My object in writing to you is to call attention to the fact that my institution was started in 1881 for a purpose precisely similar to the one I now allude to. It may interest some of your readers to know that the success of my enterprise was sufficient to encourage me recently to enlarge my house by one-third.—I am, Sir, yours, &c.,
Bourne Hall, Bournemouth, Feb. 13th, 1884. E. P. PHILPOTS, M.D.

FACIAL NEURALGIA.

To the Editor of THE LANCET.

SIR,—Could you or any of your readers kindly suggest some plan of treatment for the following case? A young lady, with a history of rachitis prominently marked, has been suffering from neuralgia of the left side of the face, especially the lower jaw, since September last. There have been short intervals of respite, but it returns suddenly as severely as ever, generally in spasms lasting for a few minutes at a time. There are no diseased teeth nor other apparent cause. She has been treated with all manner of tonics, blisters, morphia hypodermically, gelseminum, croton chloral, chloride of ammonium, and bromide of potassium, but with little or no avail. Easton's syrup at one time seemed to do good, but now has no effect; and even large doses of quinine are of little use. Phosphorus has been tried in the form of hypophosphites. I am, Sir, yours faithfully,
Feb. 18th, 1884. A CONSTANT READER.

MACKENZIE'S EMULSION.

To the Editor of THE LANCET.

SIR,—For the benefit of "Inquirens" I send the following formula for the preparation of Mackenzie's emulsion, which I recently obtained from the dispenser at the Aberdeen Royal Infirmary:—℞ Ol. morrhuæ, ʒxxxii.; gum tragacanthæ, ʒss.; sacch. albi, ʒiv.; aquæ, ʒxxxii. ol. cassiæ, quant. suff.; calcis hypophosphitis, ʒvj. gr. xxiv.; pepsinæ, ʒv. gr. xx. The tragacanth and sugar with the pepsine are to be mixed with the water in which the hypophosphite of lime has previously been dissolved. In this has to be incorporated the cod-liver oil, and after having been thoroughly mixed add the oil of cassia.

I am, Sir, yours faithfully,
Weymouth-road, Frome, Feb. 16th, 1884. JOHN M. RATTRAY.

THE PINK FUND.

To the Editor of THE LANCET.

SIR,—Referring to the appeal on behalf of Mr. Pink, which you so very kindly inserted on page 334 of your issue of the 9th inst., I beg to acknowledge the receipt of amounts as below. The total sum received to this date is £121. It is hoped that a few more of his professional brethren may like to help him, and for that purpose the fund will be kept open till the 28th inst., and any sums, large or small, remitted, either by cheques, postal orders, or stamps, will be very gladly received by your obedient servant,

Peterafield, Feb. 20th, 1884. B. J. FORDER.

Messrs. Cross and Ticehurst	£5	5	0	Lady Maria Brodie ..	£1	0	0
Thomas Smith, Esq., F.R.C.S., &c.	5	0	0	Arthur R. Graham, Esq., M.B.	1	0	0
Dr. A. M. Leachman ..	3	3	0	Dr. W. Powell	0	10	0
Thank Offering	3	3	0	Dr. Bainbridge	0	10	0
Dr. de Havilland Hall ..	1	1	0	Postal order	0	10	0
Dr. Arthur Goodchild ..	1	1	0	H. A. L.	0	5	0
Dr. G. Pearson Bell ..	1	0	0	Stamps (from Dundee) ..	0	5	0
Richard F. Bell, Esq. ..	1	0	0	P.O. (from J. B. P.) ..	0	2	6

Z. Y. X.—1. There appears little probability of volunteers being required. 2. At the office, St. John's Gate.

Dr. James Ross.—We think the question has been sufficiently discussed.

C. B.—We do not know the publishers.

FOOTBALL ACCIDENTS.

To the Editor of THE LANCET.

SIR,—Some little time ago I asked two of my sons, who used to be votaries of the game of football at their respective schools, Wellington and Clifton, to give me their candid opinion about the merits or demerits of the Rugby game, of which, as an old Rugbeian, I had had some experience. Their verdict was, "For safety give us the Rugby game; one may get a hack or two (kick on the shins), but there is no chance of getting your neck broken." In my time at Rugby I cannot recollect more than one accident where a boy was laid up for any length of time; and now that I remember what sort of a boy the sufferer was, I have every reason to believe that his peculiar diathesis had as much to do with his suffering, and that he would have been just in the same state if he had met with a slight injury in any other way. I may say that, though of average strength, neither of my sons can be called heavy. Before utterly condemning so useful and manly a game, pray take the opinion of experts. A species of collective investigation card, addressed to the heads of "Big Side," of the public schools, will give you a great deal of information. What I have written, please to bear in mind, refers only to schoolboys. I do not in the least intend to say that football is not a dangerous game for those of maturer years.—I am, Sir, your obedient servant,

Feb. 10th, 1884. M.D. (Old Rugbeian).

Mr. William H. Shawe.—The Bill is not yet introduced. We cannot therefore answer some of our correspondent's questions. His diploma would suffice, but he must be registered.

"MURKY AND MUGGY."

To the Editor of THE LANCET.

SIR,—The recent letters of Mr. Baldwin Latham, showing how little prevailing winds have to do with the spread of sore-throat in a particular district, also help to define two good old English words. "Murky" means dark here, as in the north; perhaps the Icelandic *myrkr* comes nearest to its original. "Muggy" is not only a common word for damp and dull weather with us, but has a northern *mugga*, for a moist mist. It has also a higher claim upon us in reference to fog, as the word used for this and for smoke by our British ancestors, and still extant in Wales, is *mwg*. There is also *mwci* (fog), and *mwcan* (cloud of fog), pronounced as if the words implied something unclean.

I am, Sir, yours, &c.,

Orchard-street, W., Feb. 13th, 1884. WILLIAM SQUIRE.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir E. Lechmere, London; Dr. M. Cormick, Bradford; Dr. Whamond, Jarrow; Dr. Suckling, Birmingham; Mr. R. Harrison, Liverpool; Mr. E. Clark; Mrs. Keelan, Blackrock; Mr. Tallack, London; Dr. Britton, Halifax; Mr. Arthur Price, Newport; Mr. C. S. Evans, Dublin; Mr. L. Newton, Alconbury; Mons. Evrard, Bruxelles-Nord; Mr. Atthill, Faversham; Dr. H. C. Cameron, Glasgow; Dr. Rattray, Frome; Dr. L. Ash, Holaworthy Mrs. Markham, Portsmouth; Dr. Adam, Malling-place; Dr. G. Harley, London; Messrs. Whitehead and Sons, Huddersfield; Mr. Bing, Canterbury; Mr. Edgill, Manchester; Messrs. Beal and Co., Brighton; Mr. Irving, Grantham; Mr. Hodgson; Mr. Julian, St. Columbo; Mr. Wilson, Mickleton; Mr. Clegg, Liverpool; Dr. Kisger; Dr. Naismith, Ayr; Dr. Newman, Glasgow; Dr. A. T. H. Waters, Liverpool; Mr. Moody, Purley; Mr. Spencer Watson, London; Dr. Gervis, London; Mr. Ihlee, London; Dr. Wilson, Cheltenham; Dr. Yeo, London; Mr. Quelch, London; Mr. F. Page, Newcastle-on-Tyne; Dr. Mapother, Dublin; Mr. Rankine, Sunderland; Mr. Turner, London; Mr. Griffith, Zanzibar; Messrs. Coleman and Co., Norwich; Mr. Ramsey, Farringdon-street; Messrs. Bates and Co., Southampton; Mr. Fairbridge, London; Mr. Adams, Brecknell; Mr. G. A. Wright, Manchester; Mr. James; Dr. Sansom, London; Dr. Carter, Bath; Mr. Solomon Smith, Halifax; Mr. C. D'A. Power, London; Mr. Piesse, London; Dr. Thomas, Sheffield; Dr. J. Ross; Dr. Fletcher Beach, Darenth; Mr. J. M. Young, Allahabad; Mr. A. E. Barker, London; Mr. Wickham Barnes, London; Mr. Bryant, London; Dr. Redwood, Rhymney; Mr. Walker, Kilburn; Mr. Davies, Bath; Mr. Ashby, Manchester; Mr. Vincent Richards, Goslundo; Mr. James Taylor, Chester; Mr. Forder, Peterafield; Dr. E. A. Campbell, London; Mr. Macmillan, Hull; Dr. Tily, Chiswick; A. B. C.; E. B.; M. B.; The Director-General of the Navy Medical Department; M. A. B.; X. Y. Z.; Expectans; Sympathy; F. E., Southampton; Incognito; Theta; The Military Secretary, India Office; Medical Officer; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Caton, Liverpool; Dr. Macnamara, London; Messrs. Slinger and Son, York; Mr. Lowes, Sedgefield; Dr. Mackay, Eshe; Mr. Strickland, Kensington; Mr. M'Gregor, Huddersfield; Dr. Glover, Dorrington; Mr. Seymour, Coventry; Mr. Diggins, Lancaster; Messrs. Farwig and Co., London; Dr. C. Black, Edinburgh; Mr. Sutherland, Glasgow; Mr. Deeping, Leicester; Messrs. Krohne and Co., London; Messrs. Roberts and Co., London; Dr. Macdonald, Lossiemouth; Messrs. Knight and Co., Rotherham; Mr. Hammett, Taunton; Dr. Ruckley, High Wycombe; Dr. Nedivell, Christchurch; Dr. Donaldson, Otago; Mr. Deveder, Leigh; Messrs. Crossley and Son, London; Dr. Knickerbocker, Albany, U.S.A.; Mr. Bing, Canterbury; Messrs. Roberts and Vircow, Southgate; Mr. Mills, Merton; Mr. Dunn, Preston; Dr. Sandford, Hereford; Dr. Crooms, Greenwich; Messrs. Whitehead and Son, Huddersfield; Dr. Masters, Hampstead; Dr. M'William, Barnsley; Mr. Scott, Shrewsbury; Dr. Linde, Ross; Mr. Burnstein, Birkenhead; Dr. Dunlop, Jersey; Mr. Lessley, Clapham; Medicus, Sternton; V.; Dr. C., Bradford; H. R., Sheffield; T. M. N., London; Forceps, Lytham; Fanny; Box, Blackpool; K. T., Liverpool; Delta; J. M., Towlan; C.; Medicus, Newcastle-on-Tyne; A., Kensington; M. P., Camberwell; A. Z., Hammersmith; E. G. H.; Delta; M. M., Reigate; Xenophon; A. B., Dulwich; Alpha, Liverpool; M.R.C.S.; Alpha, Salisbury; X., Buxton; Epsilon, Eccleshall; Medicus, Lindeford; J. W. W., Gainsborough; L. A. A.; &c. &c.

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